Backerack

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WILTSHIRE'S RAILWAYS

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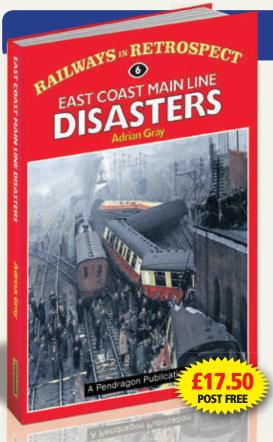
THE EXMOUTH-CLEETHORPES HOLIDAY TRAIN

25 YEARS OF THE WINDSOR LINK

COMPRESSED AIR LOCOMOTIVES

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Editorial

Vol 29 · No. 12 No. 296

RECORDING THE HISTORY OF BRITAIN'S RAILWAY

Living in interesting times

During the late summer the BBC broadcast a season of programmes with an 'Indian theme' and included among them were three dealing with that country's railway system, with Mumbai at the focus of the presenters' attention. There is, it seems, something special about India's railways and their place at the heart of that nation's transport. Whether for short-distance commuting or long-distance travel, railways are vital in a country where roads tend to be less well developed and there was no shortage of passengers ready to say how much they valued, even loved, their railways. I suspect you'd find less of that loving feeling here!

It struck me that Indian railways might be a reflection of Indian life in general: an old system with a modern control centre, a chaotic way of carrying on yet in its own way it somehow just seems to work! I have, fortunately, never had to commute into and out of London during the rush hours but that seems to be no more than mild jostling when compared with the Mumbai equivalent: all-in scrimmaging to board a train and success to the wiliest and most determined!

Railways there are a total way of life for their staff and those who earn a living on the back of them such as food and newspaper sellers, as well as the local populace who wander to and fro across the tracks as a means of general access in a casual manner which we would regard as alarming in the extreme. But the thing is – it's a national system, vertically managed, joined-up in its operational structure, all that – and it all apparently hangs together despite everything!

Given our Government's propensity to invite foreign operators to pitch for running trains over here, maybe we should let the Indian railways have a go! The future ownership of the railways is again on the agenda, or at least on that of the revised manifestation of HM Opposition. I take no idealogical position on the state or private ownership of the railway system; neither has proved perfect and probably never will. However, I believe that no other nation considering the privatisation of a state-owned railway has been tempted by the fragmentation model practised here – which might be a telling judgement on the soundness of the theory. We shall see whether matters change in the future or stay the same; in either case things probably won't get better (since they seldom do), but whatever unfolds railway politics will doubtless keep this magazine's writers and editors occupied for some years yet!

Political machinations lay behind the announcement early in the year (by one of those odd coincidences just before the General Election) that the Trans-Pennine route between Manchester, Leeds and York was to be electrified, along with the Midland Main Line to Sheffield. Not long after voting was out of the way both schemes were stopped – or, as the Ministry elegantly put it, 'paused' – for further consideration. Now they

have been (less elegantly and more ungrammatically) 'un-paused' but with longer achievement dates. Developments are awaited (though not yet in the realm of being keenly anticipated) 'in the fullness of time' – and will doubtless be a subject for *Backtrack* historians of the future.

This issue is where the 29th volume of *Backtrack* will terminate and as you read the month's little sermon the first magazine of Volume 30 will be at an advanced stage of preparation. Thirty years is not a bad achievement – and I'm sure *BT's* founders and pioneers would have been gratified to find it well established and doing OK – but there is, and always will be, much more to do.

At 30 we are, of course, still 'newish kids on the block' compared with the likes of, say, *Railway Magazine*. The *RM* was inaugurated in 1897 during the Diamond Jubilee year of Queen Victoria's reign, just five years after the abolition of the broad gauge on the Great Western Railway, and its first 30 years encompassed some momentous events both on the railways and in the world of which they were part. There was the eventual passing of the old Queen, the brief flowering of the Edwardian era before the death of the new King, the horrors of the Great War, the first Labour government, the General Strike; meanwhile the railways saw the opening of the Great Central Railway – the 'last main line', the grouping of companies into the 'Big Four', the first LNER Pacific and GWR 'Castle', the beginnings of main line electrification...

During *BT's* time we have marked the Diamond Jubilee of our present Queen, lived through the first coalition government since the last war, celebrated the opening of the Channel Tunnel and the East Coast route electrification and experienced the upheaval of the privatisation of the railway system with all its ramifications current and still to be revealed. There's a sage benediction which supposedly goes: "May you live in interesting times." I rather suspect we might! And perhaps even the Trans-Pennine electrification will have happened before our 40th!

Looking back over this year's volume, I note we have had another ten new contributors making their welcome debuts on the *Backtrack* stage which is always an encouraging sign and more are already waiting in the wings for 2016. And so, as the new Trans-Pennine electric train of optimism runs into the first snowdrift of winter and becomes entangled in the blown-down overhead wires of fate, while the replacement bus of inevitability sets out tentatively across the M62, we raise a glass to the future and wish all our readers the compliments of the season followed by a prosperous New Year!

Michael Brancemana

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LNER A4 Pacific No.60005 Sir Charles Newton at York locomotive shed in June 1950, wearing the short-lived early British Railways blue livery.

(Trevor Owen/Colour-Rail.com BRE538)

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New ballast shows that the Windsor Link had not long been fully commissioned when Class 47 No.47 501 Craftsman was photographed bringing the diverted Carlisle–Paddington's Network South East stock round the curve on 23rd July 1989. (Gavin Morrison)

It is now over 25 years since the new threequarter-mile long £13 million Windsor Link connecting Manchester's two virtually separate networks based on Piccadilly and Victoria stations became fully operational, revolutionising travel in and through the city and enabling long-distance services to be concentrated on the more modern and conveniently located Piccadilly station.

At the same time many local services were improved under the auspices of the newly established Network Northwest which also began a programme of new station building and upgrading of existing facilities.

Unstructured piecemeal development by the various companies which projected their lines into the city of Manchester during the middle years of the nineteenth century led to the emergence of two separate networks which bedevilled travel in the conurbation.

Piccadilly station (formerly London Road but renamed in September 1960 following its rebuilding in connection with West Coast Main Line electrification) handled long-distance workings from the south (Euston, Birmingham, South Wales, Bristol and the West of England etc), also Sheffield and East Anglia, and was the terminus for intensive commuter services to the south and east of the city. Victoria station (opened in 1844 and named after the monarch who was then in the early years of her long reign), situated just over a mile away, dealt with Scottish services, trans-Pennine workings to Leeds and beyond and semi-fast and stopping services to Liverpool, Blackpool and Southport etc. In addition Victoria was also the hub of busy and well used commuter routes radiating to the west, north and east which served some of the former cotton mill towns

25 YEARS OF THE WINDSOR LINK

ALAN TAYLOR reviews a successful railway network development in the Manchester/Salford area and the new train services which resulted.

in the metropolis including Rochdale, Oldham and Bury (the latter opened in 1879 and was electrified by the Lancashire & Yorkshire Railway on the third rail system as early as 1916 to encourage residential development along its 9½-mile-long route).

Difficulties caused by the lack of a centralised network had long been recognised and from time to time proposals were put forward to alleviate inconvenience to travellers (including the possibility of an underground link). In the early 1970s the then recently established Greater Manchester Passenger Transport Executive took a major step forward by introducing a new bus service (Centreline) linking Piccadilly and Victoria stations and running at frequent intervals for most of the day, passengers with rail tickets being able to travel free of charge. In addition to benefiting rail users, who previously had to make their own way between the two stations, the service (operated by midi-bus type vehicles) was also well used by commuters and shoppers for its route took in the central commercial and shopping area including the Arndale Centre, then Europe's largest covered shopping area (perhaps appropriately placed given the city's probably undeserved reputation for rainfall).

To the south of Manchester passengers from the West Midlands and Shrewsbury area etc bound for Yorkshire and the North East had long been able to avoid the inconvenience of crossing Manchester from one station to the other by changing at Stockport, six miles from the city, into a connecting service running at hourly intervals (and in the mid-1980s often

operated by one of the few remaining single unit Class 122 railcars first introduced in 1958) for the seven-mile run to Stalybridge (just over seven miles east of Victoria on the former London & North Western Railway main line to Leeds via Standedge) where connection was made with a trans-Pennine service from Liverpool Lime Street. In publicity material British Rail advertised the Stockport–Stalybridge shuttle as the "Pennine Connector – saving time and cutting corners with no transfer between stations, the ideal link in the Inter City network between Yorkshire/North East England and the Midlands/Welsh Borders".

In March 1985 British Rail unveiled plans to build a 700-metre double track connection extending northwards from Ordsall Lane Junction (on the Liverpool–Manchester line opened in 1830, the first passenger railway in the world) to join the line running westwards out of Victoria towards Bolton and Preston at Windsor Bridge, effectively linking the two networks and providing a north–south through route by way of the city centre.

This was the second such project to connect two routes by comparatively short stretches of new track in quick succession in Greater Manchester, the Hazel Grove chord then under construction to the south of Stockport being the first major new development in this part of the north west in 75 years. When opened in May 1986, the 400-metre £1.5 million chord descending quite steeply from the former Midland Railway London St. Pancras-



Manchester Central main line (opened in 1902, closed to passenger services in 1968 but retained for freight) to join the Stockport–Buxton branch at Hazel Grove enabled trans-Pennine services from Sheffield via the Hope Valley (together with Nottingham–Glasgow/Edinburgh and Harwich–Manchester workings etc) to serve Stockport. Its commissioning also resulted in Sheffield trains being extended to run through to Liverpool Lime Street instead of terminating at Piccadilly, eliminating the need for passengers to and from Merseyside to change there.

The Windsor Link scheme was considerably more involved and included major infrastructure work, notably the construction of a new £700,000 station at Windsor Bridge which would not only be an interchange point for local and provincial services on the splitting routes to Victoria and Piccadilly (an island platform layout enabling same platform connections to be made) but would also serve the nearby Salford University campus which drew students from a wide area who were not readily able to access rail services. The station, Salford Crescent, opened in 1987, taking its name from the nearby east—west arterial road (the A6).

In addition the three city centre stations which would be served by new services once the link opened – Deansgate, Oxford Road and Piccadilly – underwent extensive modernisation to cope with the increased number of workings which its commissioning would bring.

At Deansgate, situated just over a mile from Windsor Bridge and close to where the busy electrified commuter line from Altrincham

trails in, major improvements part funded by the Passenger Transport Executive costing £1 million were made to the two-platform station which, in addition to being conveniently located for the west side of the city, also served the nearby G-Mex Exhibition Centre (formerly Manchester Central station until its closure in 1969). Deansgate was linked to the Centre (which in recent years has reverted to its original name) by a tubular bridge, the Greater Manchester Museum of Science and Industry also being situated close by at the former Liverpool Road goods depot, the original terminus of the Liverpool & Manchester Railway and the first passenger station in the world.

Improvements were also carried out at Oxford Road station, less than half a mile east of Deansgate station and located close to the business heart of the city and also the university and theatreland. Its more substantial layout of four through platforms, all signalled for two-way working (with single west facing bay), was the only break in the 2½-mile-long double track section, much of it elevated at rooftop level above city streets, between Salford Crescent and Piccadilly.

At Piccadilly, half a mile further on and the hub of the cross-city link, improvements costing more than $\pounds 2$ million included lengthening the station's heavily used two through platforms – Nos.13 and 14 – to enable two trains to be handled simultaneously. This was to be an important provision for many additional workings, some long-distance including a new Paddington–Edinburgh service, would be superimposed on an already intensive commuter operation, maximum platform

With Manchester's city skyline as a backdrop (including the Granada TV studios and the town hall clock tower), No.47 750 Atlas heads the diverted 09.10 Paddington–Carlisle (the whole ensemble in Virgin colours) via the Windsor Link towards Bolton on 10th August 2000. (Gavin Morrison)

utilisation being of critical importance at this bottleneck. In addition new passenger facilities were provided including escalators and lifts linking the island platform to the overbridge connecting with the main terminal platforms (Nos.1–12).

Ithough the Windsor Link was completed in early 1988 its use was at first restricted pending major changes to the layout and platforms at Piccadilly. From the start of the summer timetable on Monday 16th May a two-hourly interval service between Blackpool North and East Anglia formed of recently introduced Class 156 'Super Sprinters' became one of the first workings to use the new route.

The trackwork and signalling on the half-mile track section between Piccadilly and Ardwick Junction dated from the rebuilding of the station in 1960 in conjunction with the pilot West Coast Main Line electrification to Crewe and was now in need of renewal. The opportunity was taken to remodel the layout particularly as services between Liverpool Lime Street and the North East via Leeds, rerouted via the Windsor Link and Piccadilly, would need to cross four of the tracks when negotiating the layout between Platforms 13



No.47 701 Waverley leads a diverted Preston-Euston train round the curve on 11th October 1998. (Gavin Morrison)

and 14 and the Guide Bridge line at Ardwick Junction (from Guide Bridge these services would regain their former route from Victoria 2½ miles further on at Stalybridge).

Remodelling the layout and lengthening Platforms 13 and 14 was concentrated in a three week period between Monday 26th September and Sunday 16th October 1988, during which time services were extensively disrupted, most routes being affected for all or part of the duration, particularly at weekends.

Local trains from the Crewe and Stoke directions terminated at Stockport or at a temporary platform at Longsight close to the traincare depot and the site of the former station which closed in the 1950s and had served the nearby Belle Vue Zoo (being featured in *Bradshaw* as the station for that popular attraction). A similar arrangement involving bus transfer applied on the Guide Bridge line, inbound trains being turned round at Ashburys, a mile and a half from Piccadilly.

Long-distance services were also affected, workings to and from Euston being diverted to Victoria with diesel haulage between there and Stockport, recalling Piccadilly's last major rebuilding in 1960 when Victoria played host to a number of diverted London services.

Simplification of the layout to reduce conflicting movements resulted in the number of points being reduced from 127 to 80. Few workings had previously run between the two routes, the Guide Bridge line having operated for many years as a virtually separate entity; up to December 1984 the line and Platforms 1–4 at Piccadilly had been electrified on the

1,500V dc system – the last remaining vestige of the Sheffield via Woodhead electrification of 1954. Having lost its through passenger service in 1970 it became freight only but closed completely in 1981 except for the thirteen-mile stretch between Piccadilly and Hadfield via Guide Bridge, a busy commuter route, which three years later was converted to the standard 25kV ac, Piccadilly up to that time being a very rare example of two distinct and incompatible electrified networks operating side by side.

One of the workings off the Guide Bridge line scheduled to cross to Platform 14 was the 05.23 (SX) Hull-Liverpool Lime Street (cut back to start from Sheffield at 06.55 from May 1987) which had continued to use the former route via New Mills Central and Ashburys when the hourly-interval service between Sheffield and Manchester was diverted to run by way of Stockport following the opening of the Hazel Grove chord in May 1986. At about ten minutes past eight each weekday morning this train, usually Class 31/4-hauled and formed of five MkII coaches, would cautiously approach Ardwick station's sharply curved island platform, often with the starter signal on red, and, after getting the road, would wend its way slowly across the up fast, down fast and up slow lines to reach the down slow, the manoeuvre at the height of the morning peak bringing other traffic to a halt. This train and the corresponding return working at 17.24 from Platform 13 provided fast services for commuters from the leafy Stockport districts of Romiley and Marple, the early evening service being scheduled to run non-stop to Marple in sixteen minutes, almost certainly the fastestever timing for the nine-mile run.

Class 31/4 locomotive-hauled trains had replaced hybrid Class 123/124 'Trans-Pennine'





multiple units on the Hope Valley line express service in May 1984. The 'Trans-Pennine' units had taken over from steam traction on the Liverpool Lime Street-Hull service in 1961, four of the six cars being powered to cope with the gradients on the Standedge route, although by the time they were cascaded to Piccadilly-Hull/ Cleethorpes workings in May 1979, the units had been reduced to four cars - the buffet car being one of the two withdrawn. The Class 31s, introduced in 1957 and one of the first diesel designs, were returning to the Hope Valley line on which they had been regular performers in their early days. With effect from the start of the summer timetable on Monday 16th May 1988 the Class 31 duties were taken over by Class 156 'Super Sprinters'.

welve months later – Monday 15th May 1989 – saw the culmination of the £30 million Manchester area modernisation plan and the full commissioning of the Windsor Link with many additional workings being scheduled through Piccadilly, the station's Platforms 13 and 14 becoming among the busiest in the country.

On weekdays between 08.00 and 09.00 fifteen trains were booked to leave in the Oxford Road direction, the majority running at three-minute headways, with fourteen workings in the opposite direction. The early evening peak saw a similar pattern while during the day the number of services was only slightly reduced. Diesel multiple units ('Sprinters' and 'Pacers' with first generation units on Warrington Central-Chester trains,

'Super Sprinters' on Blackpool–East Anglia and other trans-Penning workings), electric multiple units off the Altrincham line on the Crewe and Alderley Edge routes, together with Class 47-hauled Liverpool–Newcastle and Paddington–Edinburgh services provided an interesting variety.

Operations were controlled from a new signal centre at Piccadilly which covered an area extending from the outskirts of Stockport, six miles to the south, almost to Bolton, nearly ten miles in the opposite direction and replaced a number of signal boxes including the large Piccadilly box close to the east end of Platforms 13/14 which dated from the 1960 rebuilding.

The first day of the new timetable also saw a number of other changes including the introduction of a new Warrington Central-Chester service routed via a previously freightonly line between Stockport and Altrincham, the 81/4-mile stretch having been upgraded to passenger standard with a £500,000 grant from the Greater Manchester Passenger Transport Executive. In addition there was a new service linking Victoria and Barrow at two-hourly intervals and a half-hourly frequency service between Blackpool North and Stockport with alternate workings extended to Sheffield and Nottingham. Improvements in timings and frequency were also made on a number of other routes.

These improvements were made under the auspices of Network Northwest (officially established the same day and based on a partnership between British Rail, the Greater Manchester Passenger Transport Executive and Lancashire County Council) which began a programme of station modernisation with information boards and station signs incorporating the new red and grey logo and stripe, stations in the Lancashire area also having the red rose emblem while those in Greater Manchester had a red italicised 'M'. A new range of tickets was also introduced including day rangers. The Network Northwest area covered 492 route miles, 5,500 British Rail staff were employed and twelve million passenger journeys were made annually.

At that time there were ambitious and innovative plans to connect the electrified lines to Bury on the north side of the city and Altrincham to the south (served from Victoria and Piccadilly respectively) by means of a Light Rapid Transit system – Britain's first – using trams which would link the two systems and cross the city centre by means of on-street running, a branch also serving Piccadilly station. Also proposed was a link to Manchester Airport (one of the biggest and busiest in the country not served by rail) off the Piccadilly–Styal–Wilmslow line. Both these schemes would come to fruition in the early 1990s.

The building of the Windsor Link led to the opening of a new station, Salford Crescent, in 1987, serving Salford University as well as being an exchange between Piccadilly and Victoria-bound services. No.47 358 is not calling, though, with its Manchester Victoria–Blackpool North commuter train on 25th June 1992. (Gavin Morrison)





View of Swindon Works, 1908, looking towards the turntable and erecting shop. (STEAM – Museum of the GWR, Swindon)

BY STEPHEN ROBERTS

reat Western Railway Swindon Works. When folk put the words 'railway' and 'Wiltshire' in the same sentence, that is what they think of – and understandably so. Here was an important junction and principal works for constructing locomotives, carriages and wagons for the Great Western, all 326 acres (77½ roofed), or so it was in 1948. The works would close in 1986, with the loss of 2,300 staff.

What is there left of Wiltshire's railways today? There are three east—west routes: the old 'Great Way Round' between Reading and Bath cutting across the north of the county, the Paddington—Penzance main line and the Waterloo—Exeter line further south. There is a demarcation: Great Western to the north, London & South Western Railway to the south.

There is only one north–south route to speak of, that from Bath south to Westbury and on to Salisbury and finally Southampton. There is also a connection betwixt Chippenham on the 'Great Way Round' and Trowbridge, just north of the junction with the Paddington–Penzance line, at Westbury. The story of Wiltshire's railways is also a story of what was, but is no more.

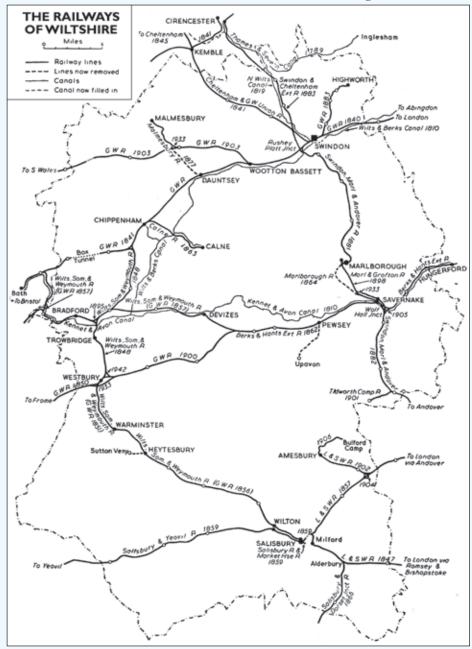
What 'was' included the story of the Midland & South Western Junction Railway (MSWJR), which once ran a north—south route in the east of the county, connecting GWR and LSWR lines; a line that played its part in both world wars ferrying troops and supplies south and wounded north, yet now consigned to history. Many branches closed around the time of Beeching, with the only heritage line today a fragment of the MSWJR, the small Blunsdon to Cricklade section in the north of the county (today's 'Swindon & Cricklade Railway'). Lots of 'halts' went, many conceived as the railways' response to competing bus services, with simple, unmanned platforms constructed

WILTSH

closer to housing than previously. A typical example was Lacock Halt, with distinctive GWR pagoda-style shelters, made from corrugated iron sheeting, on both platforms. The railways also diversified, running their own bus services, the first in Wiltshire being a GWR route between Marlborough and Calne which began in October 1904. The LSWR never ran bus services in Wiltshire, although it did elsewhere.

Lines which were military (serving army camps) and industrial (eg stone quarries in the Box and Bradford-on-Avon area) played their part too. The gauge war also featured in Wiltshire where the GWR's broad gauge finally conceded to standard gauge in 1892, with dozens of redundant broad gauge locomotives lining up at Swindon Dump, near the works.

Although a line between Bristol and London was first proposed in 1824, it was 1832 before Brunel focussed minds on a route cutting across the north of



IRE'S RAILWAYS



Savernake Low Level Station, 1957, taken through the footbridge which spans the track. The picture shows the junction of the main line to Westbury and the branch to Marlborough in the distance; it also captures the decorative scroll work on the bridge which read 'GWR' and '1883', the date the footbridge was built. (STEAM – Museum of the GWR, Swindon)

Wiltshire via Bath, Chippenham and Swindon and the following year the GWR was born. Although the first section of line opened in 1838, it would be late in 1840 before rails entered Wiltshire, reaching as far as Wootton Bassett Road, four miles east of the town. There was no station at Swindon as yet but locomotive engineer Daniel Gooch told Brunel this was where their railway works should be, one reason being the line to Cheltenham crossing here. There is a surely apocryphal tale that Brunel lobbed a sandwich out of a train window where he wanted the works built, but the site they chose made eminent strategic sense, sarnie or not. By February 1841 this was a done deal.

The push west was problematic, but Chippenham was reached at the end of May 1841, then completion of the Box Tunnel enabled Bath to be attained one month later. At this point the Bristol–London route was complete and all coaching traffic switched to the rails, leaving coachers and innkeepers "starving" according to the Bath & Cheltenham Gazette. Such is progress.

The first station entering Wiltshire from the east was eventually Stratton Park Halt, serving Swindon's eastern suburbs, not opened until November 1933 and closed in 1964. At Highworth Junction the Highworth branch joined, then the line arrived at Swindon Junction (1842), where services for Bristol and Gloucester diverged. Initially all trains stopped at Swindon for ten minutes so the station builders could recoup their costs on buffet sales with their 99-year lease on the refreshment room, the GWR having persuaded them to build the station for nought (and the

works and 300 staff cottages). Ten minutes wasn't long, especially as trains had no buffets or toilets, so there would be all kinds of queues at Swindon. All this chicanery was the start of the bad reputation dogging railway catering throughout its history. It would be 1895 before express trains passed through Swindon nonstop, but only when that 99-year lease had been bought out! It cost the GWR £100,000 but was probably a small price to pay, as Brunel always rated the Swindon coffee 'poor'. More importantly service times were now accelerated.

If the buffet trains ceased, the 'trip-week' trains continued. When works employees and their kin headed off on holiday, it was a mass undertaking and in 1939 no fewer than 27,000 departed in 30 special trains. Swindon must have resembled a ghost-town. The last ran in 1960, victim of increased car ownership.

Rushey Platt Junction was 1¼ miles west of Swindon Junction and was where the MSWJR headed south to Andover. Just before Wootton Bassett a siding (1927–72) led to the United Dairies creamery, where the first bulk milk tanks were used in England, signalling the end of the much-loved milk churn, which continues to feature on preserved railways, like the ubiquitous pile of luggage. Wootton Bassett lost its station in 1965 when stopping passenger services were withdrawn, the fate of all stations between Swindon and Bath, with the exception of Chippenham. Dauntsey (1868) later became the junction for Malmesbury to the north west.

Just before Chippenham a branch from Calne joined the main line. At Chippenham the main Grade II-listed buildings are today rather incongruously on a redundant platform minus rails, a footbridge leading to an island servicing today's 125s. The opening of the Wilts, Somerset & Weymouth Railway (WSWR) caused the station to be enlarged in 1856-7, with trains heading to the south coast over a rather convoluted route via Westbury. At Thingley Junction, south west of Chippenham, the WSWR branched off, this still providing a cut-through to Trowbridge and Westbury via Melksham. During World War II the whole area between this junction and the Wiltshire border beyond Box was one massive ammunition dump. Corsham's station (1841-1965) was in a cutting, so the main station buildings were at the top, with mere shelters on platforms. Stone trains once left here, the station itself was badly flooded in 1935 and locals continue fighting to get it reopened and have hopes, with alleviation of traffic heading into Bath from the east a

The line then entered the magnificent Box Tunnel (3,212 yards), with the last stations in Wiltshire beyond, these being Box (Mill Lane) Halt, opened in 1930 and nearer to the village centre than Box station beyond it. The line passed Farleigh Down Siding, which served a stone quarry, before disappearing into Somerset.

here was a number of branches off the GWR main line. Coming from the east, the first of these was the Highworth branch. The ceremony to cut the first turf at Highworth (March 1879) ended in farce when the larger than expected crowd led to retaining ropes giving way and the dignitaries falling in

Melksham station, c1950s. (STEAM - Museum of the GWR, Swindon)



a heap, while the band diverted attention by playing on. The first train ran in May 1883, with the branch later being one of the last on the GWR to use four-wheeled passenger coaches, prior to closure in March 1953. Goods still ran and, in fact, the Swindon end of the branch is used for freight today.

Just the other side of Swindon, the Cheltenham & Great Western Union Railway (CGWUR) headed north westwards, opening to Cirencester in May 1841 and Gloucester four years later. Prior to the Severn Tunnel (1886) trains to South Wales used these CGWUR rails up to Gloucester. All the stations on this line closed in November 1964, including Minety & Ashton Keynes, a Brunelian chalet-style station.

At Wootton Bassett the Bristol & South Wales Direct Railway (BSWDR) headed off westwards. The line was intended as a more direct route to the Severn Tunnel but we shouldn't consider this a 'branch' as it was a major undertaking, four stations having quadruple track allowing through running. The first section opened to Badminton (famous for Horse Trials from 1949) in January 1903, where two platforms were served by loops off the main line; the first through passenger train followed speedily enough in July, with running from Paddington to South Wales now occurring. There is speculation that a speed record might have been set on the line in May 1906 (Lady of Lyons), speeds over 120mph being attained with the intriguing possibility that Mallard's 1938 record may have been bested all those years earlier. Local passenger services were withdrawn from this important line in April 1961.

From 1933 Little Somerford station became a junction for the Malmesbury branch which crossed the BSWDR heading north west; the branch, which had opened in 1877, also had a junction on the 'Great Way Round' at Dauntsey. There was a comical mishap on the first day of regular running (18th December 1877) when a train demolished the crossing gates between Dauntsey and Somerford Magna; the elderly gatekeeper had failed to reach the gates in



Highworth Station, c1910, with a mixed train arriving behind a GWR 0-4-2T. (STEAM – Museum of the GWR, Swindon)

time, a door handle coming off in his hand in his house. With completion of the BSWDR the branch was worked from Little Somerford instead of Dauntsey, which reduced the branch length from $6\frac{1}{2}$ to $3\frac{3}{4}$ miles as well as giving the branch the unique distinction of changing its junction from one main line to another. The last passenger train ran in 1951, the branch closing in 1962. (See 'The Unique Malmesbury Branch' in *Backtrack* Vol.29 No.6.)

Further along, at Chippenham, there was a branch heading south east to Calne which carried substantial traffic because of England's largest bacon factory (Harris) and was therefore a profitable route for most of its life. Station and permanent way staff looked forward to a gratis pork pie and pound of bangers each Christmas. The line opened for goods in October 1863 (with 100 pigs on the first train), passengers following in November. Blizzards were a particular issue on this line in the late nineteenth century, the line closing twice for short periods. There was talk of extending the 51/2-mile Calne branch to Marlborough, but this was ditched in favour of a railway bus service which began

operating in October 1904, one of the earliest in England. The branch was a good place for 'spotters' as locomotives from four depots worked the line (Bath, Bristol, Chippenham and Westbury). There were two intermediate halts, one of which, the curiously named Black Dog Halt, was a private station for the Marquis of Lansdowne's Bowood Estate, although the public was allowed to use it so long as they behaved in rarefied surroundings.

The Wilts, Somerset & Weymouth Railway branched off below Chippenham, at Thingley Junction, with a further branch extending west to Bath. The line from the junction to Westbury opened in September 1848, continuing out of Wiltshire just over two years later (Weymouth itself was not reached until 1857). The first station after the junction was Lacock (1905–66), a settlement associated with the pioneering photography of Henry Fox-Talbot.

During World War II a 'decoy RAF station' was placed thereabouts to attract the Luftwaffe away from the genuine article. The next station was the delightfully named Beanacre Halt. Melksham opened with the line, was closed in 1966, but reopened in 1985 albeit without its stone building which had been replaced by a bus shelter. This was another station prone to flooding, as in December 1900 when a fireman swam through floodwater. Holt Junction provided the link west to Bath and was a particularly smelly place in summer with a tannery supplied with trucks of dog excrement, apparently handy for softening leather. At Trowbridge in the early twentieth century worked Jim Purnell, who allegedly had the loudest voice in Britain, being heard around two miles away. Sadly the station is not what it was, most of the buildings (which indicated the town's importance) replaced by bus shelters and the former GWR footbridge without its roof. The line then arrived at Westbury, still a busy junction today, as the Paddington-Penzance main line crosses the old WSWR here.

hereas the WSWR headed south west to Frome, there was another line from Westbury, a GWR route, south east to Salisbury, first conceived by William James in the 1820s but not acted upon (see 'William James', *Backtrack*, June 2015). The GWR eventually reached Warminster in

Calne station, the end of the branch from Chippenham, 1950s or early '60s. The buffer stops are sandwiched between the main passenger platform alongside the booking office and waiting room and the small milk dock which was used for both goods and passengers. The sign at the end was for personnel from RAF Yatesbury and RAF Compton Bassett radio training schools. (STEAM – Museum of the GWR, Swindon)





September 1851 and Salisbury in June 1856. The line became an important coal route once the Severn Tunnel was open, triple-headers sometimes required to haul 36 wagons up a steep section between Bradford and Warminster. The ultimate destination was Southampton and its steamers. The Cardiff-Portsmouth passenger service started in 1896 and continues today, whilst in July 1916 movement of troops from Wiltshire army camps to Southampton involved running 88 specials, many presumably destined for the Somme. Dilton Marsh Halt, betwixt Westbury and Warminster, is immortalised in a John Betjeman poem of the same name. Between Warminster and Salisbury all stations closed to passengers in September 1955, making it one of the longest stretches of main line without these facilities. Wilton had two stations (GWR and LSWR) just before Salisbury was reached, both playing their part in sheep movements, Wilton Sheep Fair reputedly being the largest in the country. There were also two stations in Salisbury, with just the LSWR version used today. The GWR's Grade II listed station closed to passengers as early as 1932 but was still used for goods to 1991.

Brunel planned a railway connecting Hungerford to Westbury (with branch off to Devizes) and, in so doing, achieve a quicker Class 52 'Western' diesel-hydraulic No.D1033 Western Trooper heading through Badmintion station on 13th May 1976 with the 11.15 Paddington to Cardiff. (STEAM – Museum of the GWR, Swindon)

route west than the 'Great Way Round'. It wasn't a great deal for traders and citizens in Devizes, stuck 2½ miles up a branch, and their petitioning failed to achieve a change in the route of what was termed the 'Berks & Hants Extension Railway', a right royal misnomer as most of its route was in Wiltshire. The line as far as Devizes was opened in 1862 but the crucial next phase, taking the railway on from Stert (the junction with the Devizes branch to Westbury) and completing the faster route west, was approved in 1894 and in place by 1900. Stations between Hungerford and Westbury have all closed, with the exceptions of Bedwyn and Pewsey, which has an attractive pink brick station building. Patney & Chirton, the last station before the junction for Devizes, was originally called 'Patney Bridge', but had to be renamed as folk confused it with Putney Bridge in London. The mind boggles. 1909 saw a bespoke military platform added north of the station to handle a Territorial Army

exercise requiring 140 trains. This was used in both wars before dismantling in the early 1950s, the station closing in 1966.

The Devizes branch then ran from Patney & Chirton to Holt Junction, where it joined the line heading down from Chippenham through Melksham to Westbury. The branch opened in 1857, the line passing through 190-yards Devizes Tunnel, which is today used for rifle shooting, before arriving at Devizes station. Bromham & Rowde Halt, next on from Devizes, was used by market gardeners and farmers, emphasising the essentially rural nature of the county. In 1926 alone over 62,000 milk churns were despatched from the halt, yet all stations on the line closed 40 years later. The Seend Iron Works and Tidworth Military Tattoo were features of the line at one time or another.

There was a GWR branch from Savernake, on the Hungerford–Westbury section, to Marlborough High Level, opening in April 1864 but superseded in 1933 by the MSWJR's Low Level, which arrived later, when the latter railway constructed its north–south line to the east of the county.

he London & South Western Railway's first line came up from Bishopstoke (now Eastleigh) to Salisbury, which provided a circuitous route to London in 1847, the fastest journey time a sedentary 3hr 50min. There was (and still is) one other station on this line in Wiltshire, right on the eastern boundary at Dean, one end of both platforms being in Hampshire. The Salisbury station was at Milford, on the city's south east edge. This closed in 1859, replaced by today's structure in Fisherton Street, the original continuing for goods until 1967.

It would be a further ten years before the beginnings of the Waterloo-Exeter line provided a faster journey. The dilatory nature of Salisbury's first route to London led to demands for something faster and the connection of the city with Andover resulted, the only intermediate station being at Porton, with Idmiston Halt added in 1943 to serve Porton Down Camp, associated with the chemical-biological-radiological-nuclear (CBRN) centre to the south. Both station and halt closed in 1968. The next step was to move this faster route west out of Salisbury and by 1859 Gillingham in Dorset had been reached,

Devizes station, c1900 Opened 1857, closed 1966. (STEAM – Museum of the GWR, Swindon)





GWR 'Hall' 4-6-0 No.4918 Dartington Hall with a couple of vans and an empty compartment coach at Trowbridge on 17th August 1960. (Alan Tyson)

the last Wiltshire station on the line being Semley, which sat on a summit 250ft above Salisbury and had the first wholesale milk depot anywhere in Britain. 2,500 gallons of milk were despatched daily in 1904, the traffic ending in 1980. Passengers journeyed all the way to Exeter by June 1860. Other stations out of Salisbury on this line were Wilton South (not to be confused with Wilton North on the GWR line), Dinton, both closed in March 1966 as was Semley, and Tisbury which opened in 1859 and continues to serve the village where Rudyard Kipling's parents lie buried.

If Swindon was Wiltshire's 'hub', then Salisbury was its other railway centre, where the Waterloo-Exeter crossed that north-south route between Bristol and Southampton. In the steam era Salisbury was an important locomotive-changing point, with no fewer than 83 engines allocated to the ten-road shed in 1947. This closed with the end of steam in 1967. A city of three principal stations, with a redundant GWR, superseded LSWR and today's building, designed by Sir William Tite, it would have seen some famed trains come through as the 'Atlantic Coast Express' and Pullman 'Devon Belle' used this line, although neither actually stopped here. There is also one of the best views available from any train window in the country: a fourteenth century spire rising 400ft into the sky.

There were branches off the LSWR and for over 100 years the shortest standard gauge railway line in Britain was in Salisbury. When the WSWR reached Salisbury (from Westbury) in 1856 local denizens were concerned lest their market suffer due to the station's remoteness. The new line, the Salisbury Market House Railway, all 460 yards of it, opened in 1859, bringing railway wagons within a few yards of the Market Square. Track inside the Market House was lifted during World War I and the railway finally closed in July 1964.

On a less happy note, Salisbury was the scene of Wiltshire's worst rail accident in the early hours of 1st July 1906, a high-speed derailment and collision, leaving 28 dead

including four railway personnel. The tragedy is still a mystery, the Plymouth–Waterloo boat train's experienced crew ignoring 30mph restrictions round the curves at either end of the station. The fact the driver had already worked a ten-hour shift and still had two to go before Waterloo could have been significant.

The Salisbury & Dorset Junction Railway was a route to Wimborne in Dorset, opening in December 1866, with one station in Wiltshire at Downton, positioned handily at the village's east end, but closed to passengers and goods in May 1964 when the whole line was consigned to history. The junction with the Salisbury–Southampton line was at Alderbury Junction, four miles south east of Salisbury.

& South Western Junction Railway had a route running through Swindon, that bastion of the GWR. The section between Swindon and Marlborough, handy for the sylvan delights of Savernake Forest, was achieved in 1881, with the southern section between Grafton and Andover completed the following year, the full line operating from February 1883 when junction improvements were completed at Marlborough. The Swindon, Marlborough & Andover Railway, as it was initially termed, desired a through route and

amalgamation followed with the Swindon & Cheltenham Extension Railway in 1884, the new MSWJR resulting and a more than decent route between Cheltenham and London.

One problem the MSWJR faced was its use of the GWR's branch between Marlborough and Savernake, resulting in frequent delays. The solution was the Marlborough & Grafton Railway, opening in June 1898. Milk became one of the line's most important commodities. The military also loomed large, a small branch being built between Ludgershall and Tidworth where a new camp had been established, the line opening for public goods and passengers in 1902. The risks inherent in military conveyance were illustrated in January 1946 when ammunition was being transferred from lorries to wagons in a depot at Savernake, a catastrophic explosion resulting in the deaths of eight soldiers.

Tidworth was the MSWJR's highest grossing station and on a branch, its importance shown by the fact it was its only one lit by electricity. It was literally right on the boundary with Hampshire, the border slicing through the ticket office, separating clerk from patrons, the clerk being in Wiltshire. He would have been a busy chap before the Second World War when the Tidworth Tattoo was a major event. Ultimately the branch closed to

Salisbury station, pictured in 2005. The frontage is from the 1902 reconstruction of the station by the LSWR in 1902 to the design of J. W. Jacomb. (Alan Ford)



The unfortunate aftermath of the railway disaster at Salisbury, 1st July 1906.

(Published by F. Futcher, Salisbury, 1906)

passengers (1955), then totally in 1963.

The first station in Wiltshire heading north was Ludgershall, which must have been busy with troops and horses changing for Tidworth. In fact, the needs of the War Department saw what began as a modest double track station upgraded to five wide platforms. It was not just military steeds for which the MSWJR had to cater; several of the stations on the line also handled racehorses as Wiltshire was noted for its 'gallops', some stables having private sidings.

Three-quarters of a mile north of Grafton was a triangular junction, permitting access to Savernake High Level, or alternatively, a through run towards Newbury. The High Level line also had a line to the Low Level station, positioned some 200 yards south and parallel. Apparently the proximity of the lines encouraged rival footplate crews to have unofficial 'races'. At Marlborough, where High and Low also existed, the MSWJR's Low Level station was honoured with a refreshment room. Further north the line would eventually cross the GWR to the west of the famous works and after Cricklade entered Gloucestershire.

The line continued happily until 1958 when changes at Cheltenham relegated it to local passenger traffic, with express goods also withdrawn. No longer economic, it wasn't long before passenger trains stopped completely in 1961.

The military's use of Salisbury Plain necessitated army camps from around the end of the nineteenth century and railway links followed. The Amesbury & Military Camp Light Railway opened to military traffic in 1901 and to public goods and passengers the following year. An extension to camps at Bulford and Sling followed in 1906. The junction with the MSWJR was east of Salisbury. Like Tidworth, Amesbury was on a grand scale with three large platforms poised to handle troops and supplies. In World War II a through train from Waterloo





Semley station on the LSWR main line, c1910. There are milk churns on the platform where later there would be a major milk distribution depot. (John Alsop Collection)

A delightful early Edwardian cameo of Tisbury and its station. (John Alsop Collection)





Cricklade station on the MSWJ line in September 1935 with a lorry delivery to the local goods train. (John Alsop Collection)

military's use of Wiltshire didn't end there, with Swindon Works manufacturing items for the war effort, such as guns in both wars, and disused quarries used for ammunition storage, for example at Chilmark where a siding opened in 1938 to serve a high-explosive bomb store. The First World War saw Swindon produce ambulance trains, wagons converted for horses, parts for howitzers and artillery guns, as well as shells. World War II brought more varied work to Swindon: gun components, heavy bombs, 50 superstructures for midget

A 1950s view of Marlborough MSWJ station. (John Alsop Collection)



ran for servicemen returning to camp from weekend leave. The branch passenger service was withdrawn in 1952, goods following in 1963. There were lots of military curios. The

 $2\frac{1}{2}$ -mile line between the camps at Dinton and Fovant (west of Salisbury) was busiest after World War I when it was used as a demobilisation centre, closing in 1924. The submarines and landing craft for amphibious assaults, including D-Day.

Demonstrating the railway's ability to find new customers in the 21st century, Swindon Euro Freight Terminal opened in March 2007, with Honda planning to send up to two trains of vehicles per week through the Channel Tunnel. Sadly though, Wiltshire's railways only deal today with bulk items, such as these cars from Swindon, the rest of 'goods' having disappeared. A goods train is a pretty rare sight, except perhaps at Westbury where bulk limestone trains use the freight yard, raw material coming from rail-served quarries in neighbouring Somerset.

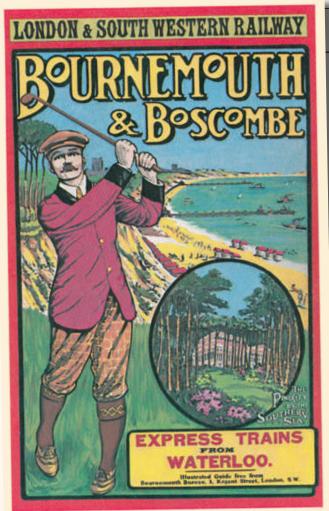


Wiltshire Railways (C. G. Maggs, 2009). Red for Danger (L. T. C. Rolt, 1955). Great Western Railway - A History (A. Roden, 2010). Eleven Minutes Late – a train journey to the soul of Britain (M. Engel, 2009).

On the Slow Train Again (M. Williams, 2011). British Railway Stations in Colour (N. Jardine, 2002).

Troops detraining at Ludgershall in 1924; horses to be unloaded next. (John Alsop Collection)





London & South Western Railway poster from around 1920. (Author's Collection)

GOLF AND THE RAILWAYS PART TWO HE LINKS BY BEVERLEY COLE

territory including a score This could be bought for 3d at bookstalls or 41/2d by post.

The 1930s were the heyday of the railway poster. A new breed of artists emerged and

established the importance of the link between commerce and art. Railway hoardings were

One of the Caledonian Railway's colourful 'Golfing Girl' posters. (John Paton Collection)

or more of first class links. It issued holiday contract tickets and circular tour tickets valid for one month which enabled the holder to break his journey as many times as he desired. The North Eastern Railway also sold illustrated holiday information booklets, one of which was Golf Twixt Humber and Tweed which included over one hundred descriptions, illustrations and a map.

The advertisers appreciated that the poster was a successful means of advertising. Its raison d'être was publicity; to attract attention and deliver a message by idea or design. Norman Wilkinson, the advertising manager of the London Midland & Scottish Railway, and a poster artist himself, was commissioned by the company to publish a series of sporting posters to publicise the many different sports and pastimes that could be enjoyed within the area covered by the railway. He said "In the territory of the London, Midland and Scottish system one finds every possible form of sport - salmon and trout fishing, shooting, hunting, yachting, racing, deer stalking and, of course, the best of golf."

ideal locations for huge posters with simple

images to convey the message in an instant

from a glimpse through the carriage window.

Some of the best brains in the business world

were concentrating on the poster as a means

of promoting trade. In this period outstanding

art was being produced to serve the railway

companies. It was original and fresh, with the posters on view for everyone to see. The

potential customer did not even have to be

literate although the golfing fraternity would

no doubt have been so!

John Hassall, most famous for his 'Skegness is so Bracing' poster, illustrated golfing posters

for the Great Eastern Railway. One particular poster showed a golfer, suitably attired, strolling along the East Coast to remind golfers of its attractions.

It was not only the railway companies which used golfing advertising. As early as the 1920s cigarettes were using golf to advertise their products with such cliches as 'Bet vou twenty vou don't hole it'. This eventually led to the sponsorship of tournaments by cigarette companies.

ne of the earlier railway golfing advertising campaigns was that of the Caledonian golfing girl. The Caledonian Railway advertising department specialised in promoting long-distance residential travel. Its slogan was 'The True Line'. Passengers travelled in 'true convenience', 'true comfort' with 'true economy' and 'true to time'. The golfing girl emerged as an instant favourite, playing the game on the 'true line' and accompanied by lists of golf courses served by the company. A contemporary magazine commented that "to but glance at the golfing girl is to fall an easy and not unwilling prey to the vogue of golf".

nce the railway companies had established the dependence of the courses they went on to promote the game in order to gain yet more passengers.

The North British Railway attempted to lure passengers on to its trains by issuing

The Golfer's Guide to Courses on the North British Railway and described itself as the 'happy hunting-ground of the golfer'. Courses adjacent to stations were listed as well as a list of 'Etiquette of Golf Don'ts' and hints on 'How to Preserve Golf Clubs'. Another enticement was the promise of unrivalled, comfortable and commodious corridor sleeping cars, provided with transverse berths and lavatories!

At the same time the London & South Western Railway Company was advertising winter golf in the south and west, emphasising the clement weather and picturesque surroundings. It boasted that it was the south and west that found the greatest favour amongst those who followed the royal and ancient game. The virtues of the courses at Bude, St. Enodoc and Wadebridge were extolled and it was claimed that sunset was half an hour later in Cornwall than in London.

In the same vein the North Eastern Railway called itself 'England's Playground' for those who loved to participate in games involving physical effort. It claimed to have more than one hundred courses in its





LMS

GLENEAGLES HOTEL

BY NORMAN WILKINSON



Norman Wilkinson's Gleneagles Hotel poster for the LMSR, c1928. (Author's Collection)

The Caledonian Railway Company saw no reason to limit its sales by aiming golfing tickets only at the male half of the population but went all out to persuade the ladies to play the game. It would, no doubt, have been an additional enticement to the potential male players to take up the game if all the female players looked like the Caledonian golfing girls. This advertising ploy is a perennial one and has been used over and over again. However, the Caledonian girls were well clad and very British. During this period the French were producing posters showing scantily clad women but the Caledonian Company must have

decided that its potential 'stiff upper lip' customers would not have approved. Its golfing girls gave the impression that golf was a game of beauty, humour, colour and grace. She grasped the viewer's attention just long enough to understand the advertiser's intention. This was helped by the recently introduced new methods of lithography which provided sharp, bold colours.

The Caledonian golfing girl is a stunning example of the relationship between golf and the railways. She had to interest people in the game of golf and then persuade them to travel by train in order to play.

laying golf and publicising it was not limited to the British Isles. The game spread worldwide. The Canadian Pacific Railway advertised golf in its staff bulletin in 1938, advocating that its staff should "play golf every day of the year in Canada's evergreen playground". There was a course reverently called St. Andrews by the sea in New Brunswick. The Canadian Pacific Railway received generous government grants each year to encourage immigration and colonisation of Canada. One particular

poster aimed at potential British emigrants is titled 'Homeward Bound' and shows an elegant lady with her suitcase and golf bag. The outdoor life was emphasised as were the similarities with England, hence the symbolic use of the golf bag. It was seen as the epitome

One of the W. D. & H. O. Wills series of 'Famous Golfers' cigarette cards featured Miss Joyce Wethered who won the Ladies' Open Championship in 1922, 1924 and 1925, then announcing her retirement. She returned in 1929 and won it again. (Author's Collection)



of the good things about British life.

The Chemin de Fer Français also contributed its fair share to golfing advertising. One of the attractions of a British holiday was its sporting facilities. Les vacances en Bretagne were seen in terms of 'plage des enfants et des sports – golf, tennis, chasse, peche'. Just as the Caledonian Railway Company had employed the golfing girl, the French railway companies gave the impression that golfing resorts were inhabited by elegant and fashionable women whose golfing style was impeccable.

Ladies' golf was actively encouraged by the railway companies. Many of the posters from the Caledonian golfing girl to the 'bright young things' at fashionable courses such as Berwick-on-Tweed and St. Andrews on the London & North Eastern Railway show golf as a sport adapted for women. In 1891 there were 38 ladies' golf clubs; by 1909 there were 510 and still increasing.

The first ladies' golf at St. Andrews was established in 1867 and that at Westward Ho! in Devon was established as early as 1868. Women originally played on smaller putting courses and it was not until the 1870s that they began to play with a set of clubs on short courses. A ladies' golf union was founded after a meeting in 1893 to establish a championship for ladies. A month later the rules were drawn up and the design for a championship trophy approved at a cost of £50. The first championship was played on the links of Lytham St. Annes Ladies Golf Club with 38 entrants from all over Europe but, interestingly, none from Scotland.

Glancing through the holiday guides for the Caledonian Railway one could be misled into thinking that golf was played predominantly by women! However, despite the fact that women could make drives longer than 80 yards ladies' golf links were designed with shorter holes than men's, possibly because, according to Lord Moncrieff in 1902, "the posture and gesture required for a full swing are not particularly graceful when the player is clad in

female dress".

Although the railway companies produced special promotional booklets giving details of accommodation and railway connections for the major golf courses, their written publicity did not reach its peak until the 1930s when electorate books were being produced by writers such as Bernard Darwin.

Bernard Darwin was the most celebrated of golf correspondents, a grandson of Charles Darwin who had written anonymously for *The Times* under the title of 'Our Golf Correspondent'. Darwin wrote books for several railway companies which sold commercially. They employed him to write hoping that his knowledge and information would act as a catalyst to increase active participation.

any of the major golfing resorts were operated by the railways and centred around luxury clubs but the railways also encouraged their own staff clubs. In both of these spheres there were successes and failures.

It was said that every golf course had a personality and visitors were as

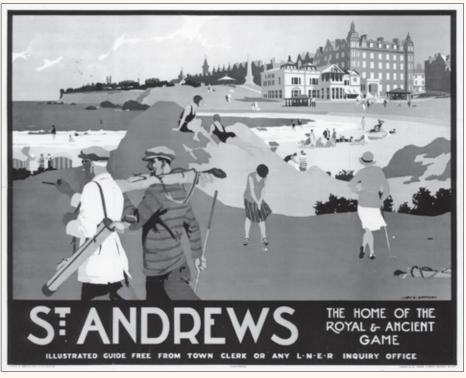
pilgrims paying tribute with their handicaps. One such pilgrimage is described by Dell Leigh in *Golf at its Best on the LMS*, written in 1925:

"There is the very real and tangible joy of departure, say, on a night at Euston. The hooting and snuffling of the impatient engine; the sliding past lighted windows of suburbs; the snug privacy of the sleeper; the little snicked-on lamp behind the pillow, presently to be switched off sleepily as the long train throbs on into the night...The morrow holds a new world; a world of golf."

One such shrine was Turnberry which has been referred to as British golf at its best. The original course was built on the estate of the Marquis of Ailsa, a committed golfing enthusiast, and taken over by the Glasgow & South Western Railway at the turn of the century. The railway company opened a branch line from Ayr through Turnberry to Girvan. The 19½-mile single track railway was one of the most scenic routes in Britain with breathtaking views across the Firth of Clyde and the Isle of Arran and Ailsa Craig. It took four years to complete with two curved viaducts and 65 bridges. Both the railway and the hundred-bedroomed hotel opened on 17th May 1906.

The hotel was connected to Turnberry station by a covered way which led into a large conservatory and entrance lounge. The hotel had special heating and ventilating appliances and other elegant fittings. For the golfer there was a suite of bathrooms fitted with plunge baths, sprays, showers, waves and hot and cold, fresh and salt, water.

The train service was also excellent. One of the Saturday trains was an express with 'dining cars for golfers' which left Glasgow St. Enoch at 1.00pm calling at Ayr, Turnberry and Girvan. In the reverse direction there was a tea car train leaving Girvan at 4.30pm for Glasgow. This extract from *Golf at its Best on the LMS* by Dell Leigh describes the almost holy Turnberry experience:



LNER poster for St. Andrews by H. G. Gawthorn c1928. (Author's Collection)

"The hotel, gay and red-roofed, stands square to the sea. Your bedroom window is flung wide to it. The early morning tea; the vision of fluttering red and white flags; a seagull or two intent upon the early worm on the greens; the prodigious breakfast under sunsplashed windows; the stroll down the seventy-three steps from the hotel to the links, the smashing drive off the tea, the hundred and one fascinations of shots all the way round...The climb up the steps to lunch, prodigious multiplied by two, for the wind and sea spray have ground the sharp edge of appetite upon you. The short stand-easy for coffee in the

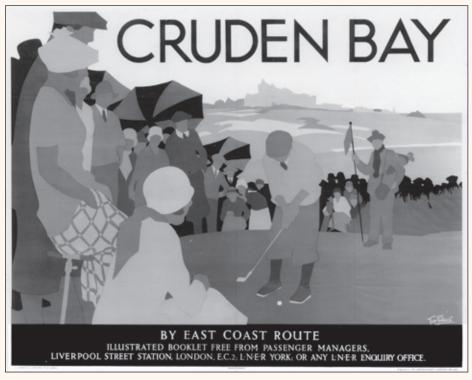
lounge. The second round, played better or worse than the morning according to your temperament and digestion. The brine bath, stinging new vitality into you. The crisp dress shirt; dinner; dance; the ladies; bridge; billiards – to some indefatigables all five. Bed, with a jocular moon hanging learingly over the lip-lapping waters – the instant sleep, bred of hard physical exercises, salt-laden breezes and a great contentment with the life of the moment."

'n contrast to this was Cruden Bay. The Great North of Scotland Railway opened Cruden Bay Hotel and golf course in 1899. It seemed ideal with a fine bay and sandy beach. It added an electric tramway three months later which ran from the station to the hotel entrance with a branch line to the laundry. Cruden Bay had the dubious honour of being the Great North of Scotland Railway's laundry centre! Under the auspices of the London & North Eastern Railway Cruden Bay was widely promoted. Inclusive fare excursions were available from Aberdeen but fewer golfers than expected were attracted. In 1932 the service between Ellon and Boddam was withdrawn, Cruden Bay station closed and tramway passenger traffic ceased. However, the trams still carried laundry and hotel goods.

As the LMS carried passengers as far as Aberdeen it too promoted Cruden Bay as a golf course. As LMS publication of 1924 described Cruden Bay as the 'Back of Beyond' and speculated that Cruden Bay "does seem a rather pointless place, a receptacle for milk cans merely. And when you get into the funny little tram, owned and administered by the railway company, that takes you from the platform, round a bend, and deposits you and your clubs literally on the hotel doorstep, your amusement is increased - what an odd place." On arrival the golfer changed his mind. He found that Cruden Bay offered golf, peace and more golf... There follows an emotional description of the more pleasurable holes...one long golfing idyll.

The artist Claude Buckle produced this gloriously stylish poster of Turnberry Hotel for the LMS in 1930. (Author's Collection)





A Tom Purvis 1930s poster for the LNER optimistically promoting Cruden Bay Hotel and golf course. The hotel proved unpopular and closed in 1945 but the golf course remains. (Author's Collection)

In 1939 the military requisitioned the hotel as an army hospital and in 1941 the tramway closed. In 1945, after the war, the hotel was handed back and sold to demolishers in 1947. Why did it fail? Why could the railway company not make it pay? Perhaps it was a little too far to travel for English golfers when Gleneagles and St. Andrews were on the way – maybe the golfing season was too short and there were no other real attractions to entice visitors. The name itself was unattractive. For these reasons, and maybe others, Cruden Bay was a flop.

he Railway Institutes promoted 'instruction and improvement' in their members. The directors aimed to establish an institution for "the men, whose brawny arms and strong muscle and mechanical skill work out that great and important agent of this present century to which this country is indebted for the pre-eminent position it holds in the scale of nations". Mr. George Leeman, a director of the North Eastern Railway, hoped

to induce young men to "employ their energies better than by wandering about the streets or resorting to places which would neither improve their minds nor their pockets". The men paid a subscription of 5s (25p) a year in 1899 for the use of various facilities.

In 1919 in York the first new recreative activity to be suggested was golf. A course was laid out on Hob Moor for an annual rent of £1 per hole, per year. The entry fee was 10s 6d with an annual subscription of 11s for gentlemen and 10s 6d for ladies. Non-railway members were admitted on special terms.

By 1920 there were six greens open for play and a clubhouse, with membership fixed at 250 people. However, there were problems. As Hob Moor was common ground the railway golfers had difficulty in preventing local boys playing cricket on the greens. They also stole golf balls and then tried to sell them back to the players! The Corporation intervened as well. It was reluctant to allow the club to mow the fairways because horses and cattle were moved to the moor during race meetings at York and

the grass was needed to feed the animals. Lady members also caused problems with highheeled shoes but this was solved by posting a notice forbidding such practice.

Eventually, though, grazing on the course was restricted and bunkers were constructed. In 1947 a new course was leased from the Lycett-Green Trust and the War Agricultural Executive when it was agreed that the land was no longer needed for growing food for the war effort. This time the grazing was restricted to sheep only!

During a recruitment drive the club boasted that it was the only Railwaymen's Institute with its own golf club. A new clubhouse was built in 1968 when a brick building replaced the old wooden one. It is now known as the Pike Hills Golf Club and although still owned by the Railway Institute it is open to all.

nd today? Do golfers still travel by train to play golf? A set of clubs on a railway platform or in a first class compartment is not a familiar sight. Today, golfing holidays are arranged through travel agents who claim to provide 'quality holidays' with 'supergolf' and 'value for money prices in top locations'. The brochures include all the necessary information about flights and hire cars but something is missing...no railways. They are neither mentioned in the brochures nor marked on the maps. Now you can go almost anywhere to play golf, from Northern Ireland to the Costa del Sol and Morocco. You can book your golf in advance, take your children, join in tournaments and stay in hotels which offer swimming pools, saunas, babysitting and a shuttle bus to the towns. However, you cannot enjoy both the passions of golf and railways in one holiday. I suppose this means that anyone with enthusiasm for both of these sports must, to be fair, take two holidays...

But not only this, the brochures lack the style, anticipation and etiquette of those issued in the heyday of golf and the railways. They

After the opening of Luffness New Golf Club, on the East Lothian coast, in 1894, the North British Railway opened a private halt on the Gullane branch for use by members only. It was not advertised in public timetables; trains stopped by handsignal or on request to the guard. Luffness Golf Club Platform closed with the branch in September 1932. (T. J. Edgington Collection)



talk of 'value for money' and hire-cars. Bernard Darwin would never have lowered himself to such trivialities. One went in order to play golf. British Rail's Scotland brochure, *One visit is never enough*, makes much of Scotlish food, castles and lochs and only mentioned in passing that one of the attractions of Scotland is golf...

On a sadly more serious level it has to be remembered that the railway network is not what it was, much of it having been whittled away over the years due to competition by the motor car. The motor car has eroded the rail network just as the canals were eroded by the railways. Rising costs and nationalisation all took their toll on the branch lines as did the introduction of high speed trains which cannot, and indeed would not, stop at little places off the main lines. Golfing stations are timeconsuming, unprofitable and somehow to arrive for a leisurely game in a high speed train would seem incongruous.

1930, 24½ years after opening, when passenger services were withdrawn between Alloway Junction and Turnberry. The remaining five miles between Turnberry and Girvan were still running until 1942 when an announcement in an Ayr newspaper declared that "The LMS Railway Company intimate that from Monday (March 2nd) the passenger train service between Girvan and Turnberry will be temporarily withdrawn." The Euston—Turnberry sleeping car was never to run again along with all the other services on that line. It never reopened

Turnberry line closed in

A trip to the home of the Royal and Ancient Club at St. Andrews has to be completed by bus, taxi or car. The station at St. Andrews closed in 1969 and the nearest station is now Leuchars. It feels somehow wrong to approach

but the course still thrives and the line can be

walked.



The Caledonian Railway capitalised on the spectator appeal of professional golf tournaments such as this one at Gleneagles in 1921. (John Paton Collection)

Golf Club House Halt was opened in 1913 by the Great North of Scotland Railway to serve the Banff Golf Club. It was a basic 'request' platform with no shelter, open from May to the end of September, and also convenient for the beach. In June 1957 BR Class 4 2-6-4T No.80005 pulls away on the last ¾-mile to Banff at the terminus of the branch from Tillynaught which closed in 1964. (Trevor Owen/Colour-Rail.com 393730)

this unique institution under one's own steam. The challenge of the Old Course is still there. The view of the clubhouse, the quadrangle and the green is still a fine prospect but a hotel has replaced the station and the railway line has been taken up. One cannot help imagining what it would have been like to approach it by train from Leuchars with the first sight of the links, spires and old town,

Golf has changed and has adapted to fit in with the changes in modern society. It is, if anything, more popular than ever and more accessible to more people. The expansion of the game in the 1890s was partly due to the formation of private clubs by golfers who wanted exclusive playing facilities. To achieve this they were prepared to travel. Golf and railways are, however, no longer mutually dependent and the modern golfer can only dream of the enthusiasm and excitement of escaping from the city by train for a week of golfing.

Picture yourself in a railway carriage:

"It is now evening and we peer out eagerly through the window into the dark for this is of great importance. After our engine has panted up the hill it tears and rushes down into the valley with only

and rushes down into the valley with only the sea now in front of it, so that we seem in advance to sniff the salt breeze of golf...

"Our very last stage is along the waters of a wide estuary, and when we stop it is on the very verge of the links. We can, if we are lucky, see the sandhills looming dark and vague, and there may be a light in the clubhouse window. We leave our clubs at the station, we commit our baggage to the same old carrier with the same old horse and then set out vigorously on foot – no carriers for us! – to stump up a steep hill. The same late tea has been kept for us with the same apple jelly. We are there at last!"

A Golfing Holiday, Bernard Darwin, 1932.





ABOVE: As stated, Willesden was mostly a freight and local work depot but after the closure of Camden in 1962 it gained more of the remaining WCML steam-hauled express work and locomotives to match. One such was rebuilt 'Patriot' 4-6-0 No.45530 Sir Frank Ree which was ready to move off the shed in April 1963.

BELOW: Horwich 5MT 2-6-0 No.42815 has come up to London from the north and enjoys a layover at Willesden on

Motive power requirements at the London end of the West Coast Main Line were dealt with at two locomotive depots – Willesden and Camden. Willesden was the larger and was principally involved in freight duties and suburban passenger services; its opening left the smaller Camden shed to deal with the express passenger work. **GEOFF RIXON** was a frequent visitor to both and in this feature we show some of the LMSR locomotive types he found at Willesden. Camden later!

1st August 1964. The 'Crab' appears to be of no fixed abode and the question mark suggests uncertainty as to where to return it. No.42815 looks as if it hasn't been loved for a while and in fact time was called on its career the next month. Next to it can be glimpsed a later Stanier version of the 2-6-0.





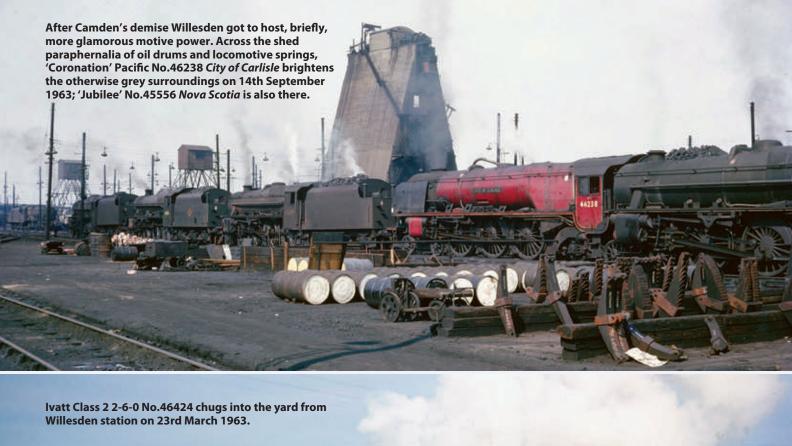
TOP: Typical of Willesden's goods fleet was LMS 8F 2-8-0 No.48649 (with Fowler tender), seen next to the water tank in October 1963.

MIDDLE: Class 5 4-6-0
No.45434 is leaving
its home shed in April
1963. 'Prepare to meet
thy God' declares the
sign on the gable end
of the houses but the
crew of the 'Black Five'
will just be hoping for
an uneventful run out
and back.

BOTTOM: LMS Stanier 2-6-0 No.42967 of Nuneaton shed is paying a visit to Willesden in May 1963.









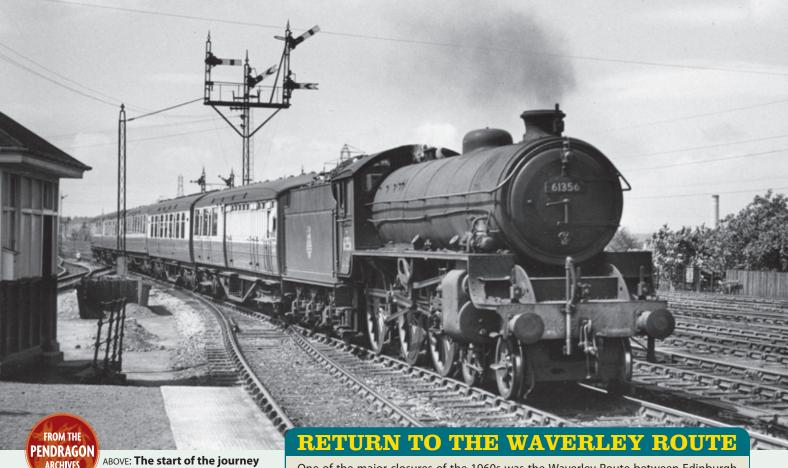




ABOVE: A 'Royal Scot' at Willesden in April 1962. No.46117 Welsh Guardsman had been a long-term resident at Leeds Holbeck depot and thus a regular on the Midland main line, so not that often seen on the West Coast route. By this time it had been cascaded to the former LYR shed at Mirfield to work out its time but what brought it to Willesden is not recorded.

BELOW: A busy August day in 1963 has brought in 'Black Five' No.45000 (supposedly the first of the class, though not so in practice) from Holyhead and 'Jubilee' No.45598 Basutoland from Burton-on-Trent. As modernisation and electrification of the WCML progressed, steam working continued to be run down and Willesden depot closed in September 1965.





ABOVE: The start of the journey from Edinburgh Waverley – LNER B1 4-6-0 No.61356 passes Portobello station with the 2.35pm local to Carlisle on 23rd June 1954. It was a long-drawn-out journey of some 3¼ hours for those patient enough to ride all the way. (Eric Bruton Collection)

BELOW: Galashiels was one of the most important stations; it was a junction for branches to Peebles and to Selkirk

One of the major closures of the 1960s was the Waverley Route between Edinburgh and Carlisle via Galashiels and Hawick, running for some 98 miles through sparsely populated Border country. It was axed, amid some controversy, in January 1969 but remarkably part of it has reopened – 31 miles of it from Edinburgh to Galashiels and a new terminus at Tweedbank. Formal opening was performed by HM The Queen on 9th September and a steam-hauled Royal special conveyed her to the ceremony. To mark such a noteworthy event here are a few photographs of the route from before its closure.

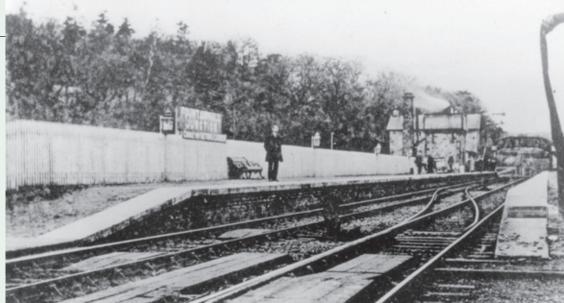
as well as having a locomotive depot, a sub-shed of Edinburgh St. Margarets. NBR D34 'Glen' 4-4-0 No.62490 *Glen* Fintaig is working the 4.06pm Galashiels– Edinburgh Waverley via Peebles on 22nd August 1952. (T. J. Edgington)



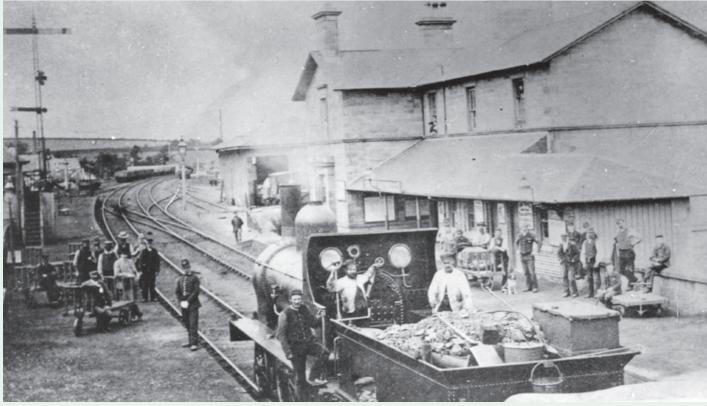
TOP: Fountainhall
Junction (seen c1900)
served a small population
in a nearby village but
its main railway purpose
was for the divergence
of a branch to Lauder
which closed in 1932.
Fountainhall has not
reopened in the new
order!

MIDDLE: Remote Riccarton Junction was one of those places which only existed for railway purposes, with a small settlement living around the station from which another border branch (closed in 1956) went off to join the Newcastle-Carlisle line at Hexham. On 1st April 1961 LNER D49 'Shire' 4-4-0 No.62733 Northumberland was calling with the 12.25pm from Hawick to Carlisle. Note the outpost of the Hawick Co-op on the platform for the railway **community.** (Alan Tyson)

BOTTOM: St. Boswells was yet another junction, with branches to Burnmouth (on the East Coast Main Line) and to Coldstream and Tweedmouth. This is an early view looking north around 1850, with all available crew, staff, dog and policeman on parade.







Back-Track



TOP: St. Boswells again on 1st April 1961 and LNER A3 Pacific No.60093 Coronach is making its booked stop with the Edinburgh-London St. Pancras 'Waverley', connecting with a BR Class 2 2-6-0 on the Berwick local; on the right is the little locoshed, disused since 1959. (Alan Tyson)

MIDDLE: An abiding image of the Waverley Route is of heavy freight trains struggling up its fierce gradients in desolate moorland settings. An LNER V2 2-6-2 might well be the motive power and here we have No.60846 slogging up the 1 in 75 to Whitrope Summit near Steele Road. (T. J. Edgington)

BOTTOM: At the southern end of the Waverley Route B1 No.61221 is arriving at Riddings with the 8.05am Edinburgh–Carlisle on 16th June 1952. Connection is being made with the 10.16 branch train to Langholm on the left-hand side of the island platform. (T. J. Edgington)







R. HERBERT LAPAGE A FORGOTTEN ENGINEER AND HIS LOCOMOTIVES

Richard Herbert Lapage was, amongst other things, a consulting engineer, an inventor and a specialist in the application of compounding to steam locomotives. Today he is virtually unknown, even though he was once a close associate of Thomas Worsdell and August von Borries, both well remembered for their work with compounds.

Lapage was born in Leeds in 1849 into a prosperous family of some social standing (his father John Lapage was armigerous). In 1868 or 1869, after completing an apprenticeship with Carrett, Marshall & Co. at their Sun Foundry in Leeds, he travelled to Argentina where his family had extensive land holdings under the management of John Henry Lapage, his older brother. Herbert, however, apparently didn't spend much of his time in Argentina enjoying a man's life on the pampas but instead embarked on a career with the railways. Details are sketchy, but it is known that around 1872-3 he was living in Rio Cuarto in Cordoba Province and was employed in the locomotive department of the state-owned metre gauge Ferrocarril Andino (Andean Railway of Argentina) and that by 1879 he was the Locomotive Superintendent of the Buenos Aires & Campana Railway. In 1876 he married an Englishwoman, Marion Swaine, in Buenos Aires and at least two of their children were born there.

Following his return to England in about 1881 he established his own business in London, offering his services as a consulting engineer. The available evidence indicates that the majority of the locomotives he was involved with, either as designer, consultant or inspecting engineer, were built for Argentina, which is hardly surprising considering the contacts that he must have had there.

Lapage had some very good connections. In July 1886 he signed an agreement with August

BY DARRYL GRANT

von Borries and Thomas Worsdell to help with the development and promotion of the Worsdell-von Borries system of locomotive compounding. In the early 1880s Worsdell had devised a method of compounding which was very similar to that previously invented by von Borries, who had patented his first designs for two-cylinder compounding in Germany in 1879. Worsdell and von Borries subsequently co-operated in the further development of their designs and signed an agreement to that effect in May 1886, but both this and an earlier agreement dating from May 1885 between Lapage, von Borries and a German engineer named Glaser were replaced by the July 1886 agreement.

Many patents relating to locomotive compounding were for variations and improvements to existing designs rather than major new concepts (it is not possible to patent the idea of compounding, only the mechanisms by which it is achieved) and a frequent subject of these patents was the starting valve, a device that admitted a limited amount of high pressure steam to the low pressure cylinder or cylinders with the intention of making it easier to start the locomotive from rest. The starting valve was often combined with an intercepting valve, the purpose of which was to prevent steam from

Worsdell-von Borries two-cylinder compound 4-4-0 No.93 Manuel J de Guerrico, one of the pair that Lapage designed for the Buenos Aires Western Railway. Two-cylinder compounds became a characteristic of Argentinean locomotive practice that lasted well into the twentieth century. (© CSG CIC Glasgow Museums and Libraries Collection: The Mitchell Library, Special Collections)

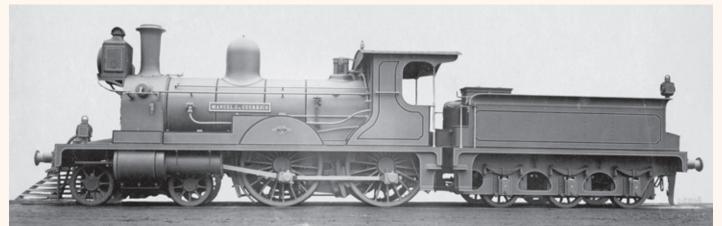
The Buenos Aires Western Railway's No.92 Mariano Haedo was one of two unsuccessful Webb three-cylinder compound 4-2-2-0s built by Dübs & Co. under Lapage's supervision. On Webb's LNWR compounds the slide valves were positioned below the high pressure cylinders but on the BAWR engines they were more conventionally located above the cylinders. (© CSG CIC Glasgow Museums and Libraries Collection: The Mitchell Library, Special Collections)

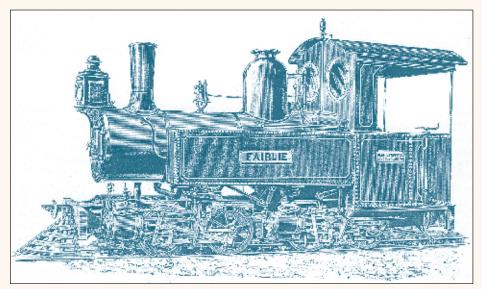
the high pressure cylinder entering the low pressure cylinder(s) while the starting valve was in operation. There were dozens of designs for starting valves, many of which differed only very slightly from one another. Worsdell and von Borries (and later Lapage as well) individually or jointly patented several starting valve designs, all of them incorporating an intercepting valve.

ccording to the terms of the July 1886 agreement between Worsdell, von Borries and Lapage, a royalty of £50 was to be paid for every locomotive constructed, using their patents, which had a high pressure cylinder diameter of 13in or more, with lesser amounts being paid for smaller engines. Locomotives built in Austria, Belgium, Germany, Italy and Russia were excluded from the agreement. Lapage was to receive 27% of the income from the royalties, von Borries and Worsdell would both receive 33% and the remaining 7% was to be paid to Taite & Carlton, a London firm which acted as agents for the patents and also managed the accounts. Lapage, along with Taite & Carlton, had the responsibility of promoting the various inventions covered by the patents.

During the 1880s Lapage was granted patents for articulated locomotives, a hydraulic train brake, a brake hose coupling and a system to enable trains to climb steep gradients using hydraulic rams and rail clamps, none of which appears to have been put to practical use, as well as patents for compounding. He also jointly held several patents for compounding with von Borries and Worsdell.

In 1889 he read a paper on locomotive





The Kerr, Stuart & Co. locomotive that never was: Lapage's narrow gauge compound articulated tank engine of 1890. If Robert Fairlie had still been alive he would almost certainly have taken offence at the nameplate! (The Railway Engineer)

compounding to the Institute of Mechanical Engineers, in which he referred to six 2-6-0s that had been built to his designs by Dübs & Co. in 1886 for the Central Entre Rios Railway, a standard gauge line in Argentina. Five of these were simple expansion engines but the sixth was a Worsdell-von Borries two-cylinder compound. His paper discussed the design of the compound engine in considerable detail and also briefly described three trial trips it made on the Caledonian Railway, the last and longest of which was to Greenock with a coal train, returning to Glasgow with a load of limestone. Between trips the engine was kept at the Caledonian's Polmadie shed.

Also in 1889 an engineer named Worthington read a paper on compounding to the Institute of Civil Engineers. Lapage participated in the discussion that followed the presentation and not only referred again to his Central Entre Rios Railway compound 2-6-0 but also to some two-cylinder compounds which he had designed for another Argentinean railway, the Santa Fé and Cordoba Great Southern Railway. Rather unexpectedly he also mentioned that amongst the various locomotives he had designed or which had been built under his supervision were "two of Mr. Webb's three-cylinder engines" but did not elaborate any further.

Only a small number of Webb three-cylinder compounds were built for export and amongst them were two 4-2-2-0s built in 1885 by Dübs & Co. for the 5ft 6in gauge Buenos Aires Western Railway (BAWR). At the same time Dübs also built for the BAWR a pair of Worsdellvon Borries two-cylinder compound 4-4-0s of Lapage's own design. To enable a comparison to be made between the two forms of compounding they were designed to be of similar power output, both types having 5ft 11in diameter driving wheels and virtually identical boilers and fireboxes. The three-cylinder engines had 12in diameter high pressure outside cylinders and a 26in diameter low pressure inside cylinder, while the two-cylinder engines had a 16in diameter high pressure cylinder and a 23in diameter low pressure cylinder, all with 24in stroke. Lapage would have been the BAWR's consulting engineer for these four locomotives and would have supervised their construction.

The Webb three-cylinder compound 4-2-2-0s (BAWR Nos.91 and 92) were utter failures and, after sitting unused for several years, were drastically rebuilt in 1895 as two-cylinder simple expansion 2-6-0s. The Lapage two-cylinder compounds (BAWR Nos.93 and 94) fared somewhat better, performing useful work until they were scrapped in 1907 and 1922 respectively.

In the February 1890 issue of *The Railway Engineer* there appeared a brief article that described some narrow gauge locomotives by Kerr, Stuart & Co., one of which was a compound articulated tank engine. An additional paragraph appeared in the following issue to inform its

readers that the method of articulation used was "the invention of Mr. R. Herbert Lapage, M. Inst. C. E." and that the engine was "built upon the Worsdell-von Borries & Lapage system". "This engine" it added "is admirably adapted to the heavier class of contractor's work, and also for light railways &c." The engraved illustration which accompanied the original article showed what appeared to be an Anglicised version of the small Mallet compound articulated tank engines then being produced by European manufacturers such as Decauville.

Despite the inference contained in these articles there is no record of Kerr, Stuart ever supplying such a locomotive (in 1890 they were not locomotive builders but agents who sold locomotives built for them by other firms) and in all probability this was simply an attempt by Kerr, Stuart and Lapage to stir up some interest in a new and untried product and hopefully to make a few sales. The illustration was almost certainly nothing more than an artist's impression of what such an engine might look like. Although the article stated that the engine was fitted with Joy's valve gear the illustration clearly showed Walschaerts valve gear!

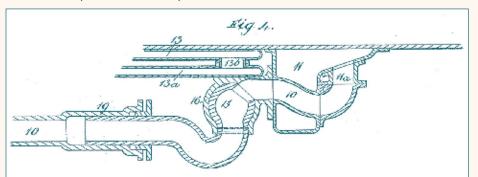
An important feature of Lapage's designs for articulated locomotives was the use of a hollow ball and socket, rather than a pivot, as the means of articulation between the front and rear frames. This ball and socket also gave flexibility to the steam pipe between the high pressure cylinders on the rear unit and the low pressure cylinders on the front unit, as the pipe was arranged so that the steam passed through the ball and socket's hollow interior.

Lapage's business activities were not confined just to locomotive and railway engineering. In the second half of 1889 he was in Western Australia where, after taking part in a surveying and gold prospecting expedition, he negotiated an agreement with the Western Australian Government on behalf of the Hampton Lands and Railway Syndicate Ltd., a London-based company of which he was a director, for the purchase of up to 1,340,000 acres of land on the Hampton Plains, near Coolgardie. Gold mining and pastoral development were the company's primary interests. It also proposed to construct a railway to the Hampton Plains from Esperance, a port on Western Australia's south coast, but vested interests ensured that Government approval for the line was not forthcoming. The Western Australian Government Railways eventually built a 240-mile-long railway to link Esperance with Coolgardie, but did not complete it until 1927

Lapage returned to Western Australia at least three more times in the 1890s in connection with the Hampton Lands and Railway Syndicate and other mining companies with which he was associated. In 1894, after one of these trips, he wrote a paper on the gold and other mineral resources of Western Australia and read it to the Institute of Civil Engineers. He is on record as saying that he had travelled widely in North America as well as in South America and Australia, though no explanation was given as to whether this was in connection with mining or railways (or both).

n 1890 the New South Wales Government Railways (NSWGR) awarded Beyer, Peacock & Co. a contract to construct 50 4-6-0s; these were the first batch of the

It was Lapage's intention that a hollow ball and socket would provide flexibility for his articulated locomotives. Steam from the high pressure cylinders would pass from the receiving chamber 11 along pipe 10 to the low pressure cylinders via the ball and socket 15-16. (Author's Collection)



NSWGR's extremely successful P(6) Class. Lapage was, at that time, still busy in Western Australia on behalf of the Hampton Lands and Railway Syndicate, but in September that year he took some time off to travel to Sydney and meet the NSWGR Commissioners. His enterprise was rewarded the following month when the decision was taken to have two of the new P(6) Class engines built as Lapage patent three-cylinder compounds. Not completed until 1893, they were allocated NSWGR numbers 520 and 521.

The layout of the cylinders on these two compounds was unusual to say the least. They had a single 21in diameter high pressure cylinder on the left side and two 22in diameter low pressure cylinders on the right side, with the latter arranged one above the other in a single casting and driving on to a common crosshead, which in effect was a form of two-cylinder compound. The reason for using two low pressure cylinders was that a single cylinder of equivalent volume would have had a diameter of more than 31in, which would have fouled the NSWGR loading gauge by a substantial margin.

This cylinder layout first appeared – though only on paper – in 1879, when the French engineer Anatole Mallet published a number of schemes for three- and four-cylinder compound locomotives. Mallet is probably better known today as the originator of the Mallet articulated locomotive, but in 1874 he patented a system of two-cylinder compounding that was first used two years later when Schneider of Le Creusot built the world's first successful compound locomotives for the Bayonne–Biarritz Railway.

Lapage had patented his three-cylinder compound locomotive design in 1889 and while it closely resembled Mallet's design of 1879 it differed in one important detail. Mallet used a non-automatic starting valve, which enabled the driver to control when the engine changed back to full compound working after starting, but Lapage's design used an automatic starting valve in which the changeover took place automatically soon after starting, without any intervention from the driver. The first automatic starting valve had been patented by von Borries in 1879, and his design can be regarded as the ancestor of all automatic valves, just as Mallet's starting valve could be considered to be the predecessor of all non-automatic valves. Lapage, von Borries and Worsdell later jointly patented designs for both automatic and nonautomatic starting valves (the BAWR's pair of Lapage 4-4-0s had non-automatic valves), but Mallet never wavered in his preference for nonautomatic valves.

The number of compound locomotives built for Argentina ran into the hundreds, but fewer

than 50 ever ran in Australia, nearly all of them being Vauclain four-cylinder compounds built either in the USA by the Baldwin Locomotive Works or in Australia to Baldwin's designs. The rest were a mixed bag which consisted of the Tasmanian Government Railways' pair of K Class Beyer-Garratts (the class leader K1 is now preserved in Wales), three 2ft gauge Mallet 0-4-4-0Ts by Orenstein and Koppel, and the NSWGR's two Lapage compounds.

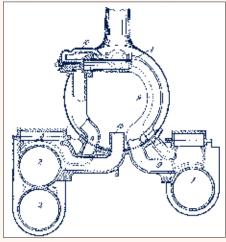
Once the NSWGR put Nos.520 and 521 into service it soon became apparent that their performance was inferior to that of the standard simple expansion P(6) Class locomotives and they had to be given load ratings about 15% lighter than the simple engines. No serious attempts appear to have been made to improve their performance and they were converted to simple expansion in 1900-1. No.521 (renumbered 3250) was first to be scrapped, in 1959, while No.520 (renumbered 3249) lasted until 1969. The NSWGR's only other compounds, a pair of Vauclain four-cylinder compound 2-8-0s built by Baldwin in 1890, had been similarly disappointing and were converted in 1896. The P(6) Class (later the C32 Class) eventually grew to total 191 locomotives, but no more were built as compounds.

In addition to mining, Lapage had interests (either as a director or a major shareholder) in several other ventures in Western Australia, including real estate development, a shipping company and even a sandalwood distillery. He maintained his business links with Argentina as well, having acquired for himself some of the family's lands in Cordoba Province and also through owning shares in several of the British-owned Argentinean railway companies.

At home in Great Britain he was a member of the Geological Society of London and the Huguenot Society, as well as being a Justice of the Peace. In the 1890s he lived in Surbiton, which he represented on the Surrey County Council, but by 1908 he had moved to Kent and was living at Sheen House in Walmer.

It is possible that he retired around the time he moved to Walmer. The last time that his name appeared in print in connection with newly constructed compound locomotives appears to have been in an article describing some two-cylinder compound 4-6-0s built by

The NSWGR's P(6) Class Lapage compound No.521, showing the two low pressure cylinders which drove a common crosshead. The engine appears to be as built, apart from the addition of compensating levers between the first and second axles of the tender. (ARHSNSW Railway Resource Centre)



Lapage's patented three-cylinder compound design of 1889, here applied to a locomotive with outside slide valves. The combined starting valve (10 on the drawing) is a Worsdell-von Borries & Lapage type. (Author's Collection)

Beyer, Peacock for the Buenos Aires Great Southern Railway, which appeared in *The Locomotive* magazine for July 1907. This article stated that most of the engines recently sent to Argentina were two-cylinder compounds "on the Worsdell-von Borries & Lapage system". He died in Walmer on 3rd November 1930, aged 81.

Engineers like Lapage were an essential part of the British railway export industry, but their contributions have mostly gone unrecognised. He was never a well known 'name' in the way that other engineers were (his colleagues von Borries and Worsdell for example), but fame is not the only measure of success and a career as varied and adventurous as his – Locomotive Superintendent, engineering consultant, locomotive designer, inventor, explorer, gold prospector, lobbyist and entrepreneur – deserves to be remembered.

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ick Dunnett began his railway career as a cleaner at Hadleigh in Suffolk and retired as an Inspector, based at Immingham, in the 1970s.

"In October 1930 I was informed that I was to report to the driver-in-charge at Hadleigh station the following Monday. The clerk gave me a one journey pass and the usual reminder that no travelling or transfer expenses would be allowed. Because of the amount of time it would take to travel by train from Ipswich to Hadleigh and the hours I would have to spend waiting to start work, and the fact that I could not afford to go into lodgings, I decided to cycle to and from work. This meant a bike ride of 25 miles a day, whatever the weather.

"Hadleigh was the home of the original 'Moonrakers' and the place where all thunderstorms are conceived, if the natives were to be believed. After some of the celestial displays I was privileged to witness from my spot on the hill overlooking the town, I had no reason to doubt them.

"Hadleigh is a small market town about twelve miles from Ipswich by road and was situated at the end of a branch line that started at Bentley Junction, on the main line between Ipswich and Colchester. The branch was opened to passengers and goods in 1847 by the Eastern Union & Hadleigh Junction Railway, which later became the Great Eastern Railway. It was a one engine, two engine crew and one cleaner branch line.

'My cleaning duties started at one minute after midnight and finished at one minute after eight o'clock in the morning, six nights a week; there were no Sunday trains. The first engine crew booked on at seven in the morning and the second booked off at about ten at night. This crew would dispose of the engine and leave it attached to the water raiser steam pipe by coupling it to the Westinghouse pump steam valve pipe. Steam from the boiler was blown through this pipe down to a well in a ditch and up a further pipe to the top of the water tower. When I booked on duty I would light the fire in the engine, and having raised steam, would start the water raiser going. When the water tank was full I would fill the engine tanks and boiler and would then disconnect the raiser steam pipe from the engine and coal up. What cleaning I could do was achieved whilst I was filling up the water tank.

"It was a lonely spot where the water tower was sited and the noises that surrounded you at this unlit spot made it an eerie place. Things that rustled in hedge bottoms were never seen but assumed the size of donkeys by the noise they made. One noise I was told I would hear was the rattling of signal wires that ran from the signal box quite near the water tower. This was likely to be poachers going about their business. It sounded exciting but I never saw or heard anything of my fellow night workers. I did report that the station gas lights would often light themselves; blame was eventually laid upon bats or birds taking a rest on the stopcock arms of the lamps.

"I would cycle the 12½ miles from Ipswich to work during the winter without seeing a soul; Hintlesham, the only village of any size, and a few groups of farm cottages were the only habitations I passed. The parish lantern (Moon) was the only illumination most villages had; the only light I had was in the staff cabin.

"Early daybreaks in the summer were a

A CLEANER AT HA



A general view of Hadleigh station and its confines on 12th September 1922. The water tank stands opposite the signal box and the one-road engine shed is on the extreme right, close by the maltings.

great help as I could leave some of the work until it was light. I did not need a watch as I found I could tell the time to the nearest five minutes, if the sky was clear, by the passage of a very bright star over three nicely placed trees on the skyline.

"I usually left Ipswich at about nine thirty each night and the journey took about an hour. I would vary the route to offset the boredom.

'My first job was to illuminate the engine shed with the one lamp that was in the cabin. I would light the cabin fire as this was my home for most of the night and then read the note that the driver-in-charge had left me. It always read the same but, to one whose schoolteacher had taken a sadistic pleasure in clouting my ear every day because she took a dim view of my handwriting, was a delight to read, beautiful copperplate longhand, wasted on a nondescript message which read 'I have left you six pieces of wood' (it was always six, used to light the engine fire), do not leave the gas light on when you leave the cabin'. His concern for the gas light was for reasons of safety but also because lighting the engine shed was costing about twopence a night!



ADLEIGH A. J. LUDLAM

The engine shed – the cabin attached to it is behind the neatly stacked coal on the left, with the station beyond. A row of cattle wagons stands near the maltings.



"The driver-in-charge was one of nature's gentlemen, always polite, quietly spoken and very considerate. Every morning he would search his henhouse for a new-laid egg for my daughter's breakfast.

"He was always concerned about my family's welfare and was more than pleased to tell me that, as one of the lowest paid of the footplate staff, I had been awarded two shillings a week pay rise when the railway company persuaded the unions to accept a 21/2 %

reduction in basic pay of other grades under their 'Fair Deal for the Railways' package. It was to help them ride out one of the continuing crises they always seemed to be passing through. I worked all my life under the threat of possible redundancy or demotion to a lower

The entrance to a very elaborate Hadleigh station, on the occasion of the visit by the Railway Enthusiasts' Club on 30th September 1956.

grade. The threat of these was ever present and became a fact when the shed was closed on 29th February 1932. The driver-in-charge and the two firemen were transferred, with the engine, to Ipswich. He continued to work goods services over the branch until he retired.

"I was ordered to report to the foreman of the Ipswich locomotive depot engine repair shops the next Monday morning. I was to become a 'nutcracker' to a time-served engine fitter."





ABOVE: The exciting era of the LNER streamliners is perfectly epitomised by A4 No.4489 *Dominion of Canada* with the blue and silver grey articulated coaches of the 'West Riding Limited' at Leeds Central. The red wheels were an inspired splash of contrasting colour, while the locomotive is further adorned with the bell presented in 1938 by the Canadian Pacific Railway. The men on the track assume a casual attitude. This rare photograph was taken in 1939 and such scenes would soon be gone, not to reappear. (H. M. Lane/Colour-Rail.com NE205)

BELOW: Fast forward to 1949 and we have new owners in British Railways, a new class of Pacifics – the A1, and a new blue livery with black and white lining. No.60127 (yet to be named Wilson Worsdell) is leaving York with an up express, passing Locomotive Yard box and its signal gantries. The engine is not all that clean but its blue colour scheme is discernible enough, with the first version of the BR emblem on the tender. (Ernest Sanderson/Colour-Rail.com BRE1113)

EASTERN BLUE

Blue has not been a widely-employed locomotive livery down the years, the Caledonian and Great Eastern Railways being notable exceptions. The London & North Eastern Railway went in for it on its streamlined A4 Pacifics and after nationalisation British Railways adopted it in its first few years on its top-rated express passenger locomotives. For these purposes we shall look away from the drab 'rail blue' of the late 1960s and thereafter, instead focussing on the Pacifics of the East Coast Main Line.



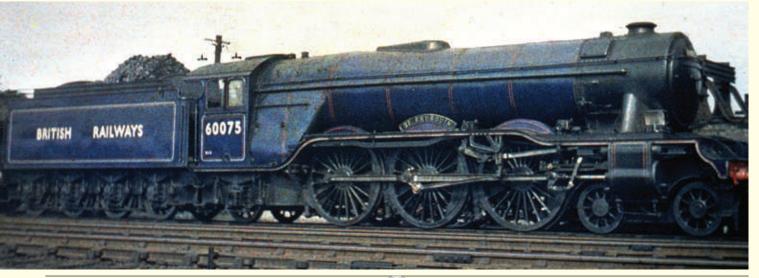


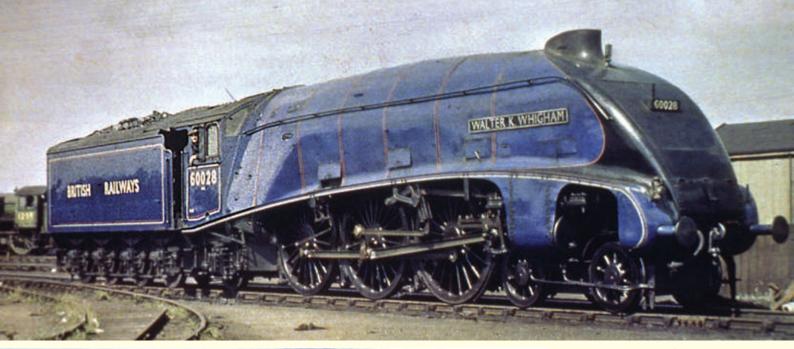
TOP: After the war the LNER hastened to restore its old liveries to relieve the austerity gloom and so its garter blue and red wheels reappeared on the A4s. This Dufay transparency shows that by 1949 No.60033 Seagull had gained British Railways markings; with Thompson 'painted teak' stock it is about to leave King's Cross with the 9.30am 'Capitals Limited', the non-stop to Edinburgh which had been reinstated that year. (J. F. Aylard/Colour-Rail.com BRE280)

MIDDLE: This interesting shot reveals how BR, before deciding on its form of blue livery as opposite and on the front cover, experimented with various shades including this one which verged on purple with red and cream lining. A3 No.60084 *Trigo*, recorded at Newcastle Central, was one of half a dozen so painted. Note also the experimental 'plum and spilt milk' carriage livery. (Peter Hughes/Colour-Rail.com 360954)



BOTTOM: A3 No.60075 St. Frusquin displays the dark purple/blue style to better effect at Edinburgh Haymarket depot in 1949. (J. Robertson/Colour-Rail.com SC252)





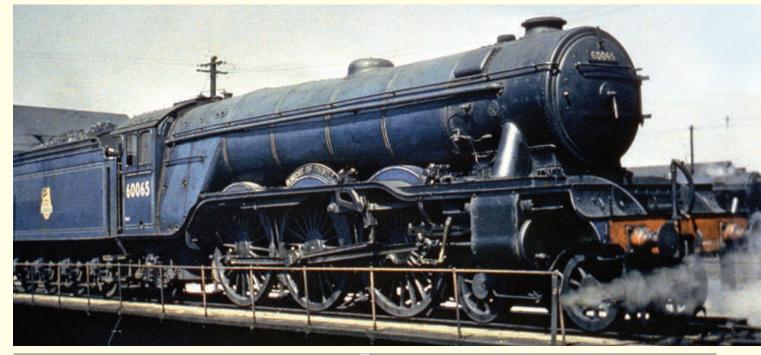


TOP: A4 No.60028 Walter K. Whigham was one of four of the class turned out in the trial dark blue in June 1948, in which month it presented itself at Grantham shed. (J. Jarvis/Colour-Rail.com BRE159)

MIDDLE: In 1949 BR decided on its new standard blue, different from that on the A4 above, and A3 No.60072 Sunstar had not long been in it when photographed at York shed that September. (Ernest Sanderson/Colour-Rail.com BRE1120)

BOTTOM: A3 No.60065 Knight of Thistle on the Haymarket turntable in 1949. The difficulty in accurately capturing exact colours with contemporary film is clear but in the event the blue was found not to be particularly durable in service and was discarded in 1951 in favour of the more familiar Brunswick green.

(J. Robertson/Colour-Rail.com SC251)





arch 2016 sees the 50th anniversary of the closure of the Somerset & Dorset line, bringing to an end a much-loved railway. Primarily, the line linked a modestly sized city – Bath – with a moderately sized seaside resort – Bournemouth. Neither had any industrial background to produce freight traffic. Serving a scattering of small towns and villages in between, the Somerset & Dorset was never going to be a high revenue earner. However, the route enabled the Midland and London & South Western Railways to bring passengers from the Midlands and the North to the south coast without having to

At the peak of the summer service the southbound train was loaded to twelve bogies and 7F No.53801 was provided and had the assistance of 2P 4-4-0 No.40634 for the climb over the Mendips on 30th July 1960. (Ivo Peters, courtesy Julian Peters)

THE SOMERSET & DORSET'S EXMOUTH-CLEETHORPES HOLIDAY TRAIN

With the 50th anniversary of the closure of the Somerset & Dorset line fast approaching, **JONATHAN EDWARDS** looks at one of its timetable oddities.

touch Great Western metals. In 1910 a daily Manchester to Bournemouth service was inaugurated, emerging as the titled train 'The Pines Express' in 1927. By 1924, in addition to two daily North expresses, there were four more running on summer Fridays and Saturdays. Ten years later, there were eight summer Saturday expresses.

As rail-borne traffic steadily drifted away

during the post-Second World War period, this expanding holiday traffic was one bright light that glimmered amongst the otherwise gathering gloom. The advent of holidays with pay, together with generally rising standards of living, resulted a fortnight's holiday by the seaside becoming not only an annual event but a great British tradition. Before the rise of mass car ownership and later the availability of



package holidays abroad, the railways carried vast numbers of families to and from Britain's seaside resorts. The Somerset & Dorset played its part in this holiday trade, with summer Saturday trains conveying thousands from the Midlands and the North to Bournemouth.

Towards the end of this period, there was one variation on the Bournemouth-centric theme. Commencing in 1960, a summer Saturday train started at Exmouth and terminated at Cleethorpes, having traversed the S&D system between Templecombe and Bath. To be precise, it was the Exmouth and Sidmouth to Cleethorpes service. Between 1949 and 1959, there had been a Bournemouth–Cleethorpes service, hence this was a variation on an existing theme.

This train, however, was not a 1960s innovation. A service linking Bournemouth with the East Midlands had started with the introduction of a daily working to Nottingham and Lincoln in 1924. Its true precedent was a Fridays and Saturdays summer service from Exmouth to Nottingham which had commenced in 1927, via the S&D. In 1932 it departed Exmouth at 9.05am; in reverse it left Nottingham at 9.50am, arriving in Exmouth at 5.56pm. In 1936 it ran on Fridays and Saturdays, also carrying a Sidmouth portion (dep. 9.20am Saturdays; two minutes later on Fridays). Described in the Southern Railway Working Timetable as 'through coaches for L.M.S. Rly., via Templecombe', the ultimate destination was not specified. The return working arrived at Sidmouth at 5.17pm and Exmouth at 5.41pm on Fridays, one minute later on Saturdays. This service continued until the advent of the Second World War, which put an end to summer holidays on a large scale.

The rolling stock of the 1960s version consisted of between seven and twelve coaches, dependent on the time of season. Although the rolling stock settled down to consist of one rake of Eastern Region stock and one of Southern Region stock, photographic evidence suggests that the service commenced with two Eastern sets in 1960. As the size of the trains varied with the season, so did the stock formation. The timetable quoted below is the Southern Region one for summer 1962; the locomotive rosters are those for 1961.

he northbound service commenced from Exmouth at 10.42am, booked for an Ivatt Class 2 2-6-2T haulage. The Sidmouth portion set off at 11.07am, double headed by another Ivatt Class 2 2-6-2T and an M7 0-4-4T; this pair took the combined train on from Tipton St. Johns to Sidmouth Junction. Waiting to take over at Sidmouth Junction was

After reversal at Sidmouth Junction on Saturday 30th July 1960 the train is taken on to the branch with an impressive array of power, comprising BR Class 3 2-6-2Ts Nos.82018 and 82010 and London Midland Class 2 2-6-2T No.41318. Normally two locomotives worked these long through trains on the branch, so the third engine was likely to have been added for operational convenience to save a 'pathway'. On this occasion the Sidmouth portion had four ER coaches, while Exmouth had six ER coaches. (Stephen Derek)

a Class N 2-6-0, having set off light engine from Exmouth Junction shed (Duty 541) at 10.45am. Although officially rostered for a Class N between Sidmouth Junction and Templecombe, it was not unknown for a Class U 2-6-0 or even a Bulleid Pacific to undertake the duty. No. 31901 was photographed at Axminster on an overcast day in 1961. Similarly, on 25th June 1960, No. 31632 was pictured by that eminent photographer of the S&D, Ivo Peters, at Templecombe No. 3 Junction, moving on shed for servicing.

Reversing at Sidmouth Junction, the train departed at 11.33am, subsequently calling at Seaton Junction (dep. 11.53am) and Axminster (dep. 12.01pm), making connections with Seaton and Lyme Regis branch trains respectively, thereby catering for all the Southern Region's East Devon and West Dorset seaside resorts. A non-stop run to Templecombe (arr. 12.45pm) ensued, where three minutes were allowed to change locomotives.

This next stage guaranteed a treat for the railway enthusiast. The train was now rostered for haulage by one of the famous S&D Class 7F 2-8-0s for the run up and over the Mendips and into Bath. The use of one of these freight locomotives on a passenger duty usually occurred only in an emergency, as a replacement for a failed engine. The first batch of six locomotives had been introduced in 1914, a further five following ten years later. They were specifically designed for heavy freight haulage over the Mendips, the 1 in 50 gradients requiring not only their immense pulling power uphill but their braking capacity downhill as well. They were permitted a





maximum of ten coaches unassisted. Upon departure from Templecombe at 12.48pm, the train then called only at Evercreech Junction (dep. 1.10pm) before a non-stop run to Bath Green Park.

Whilst the climb to the summit at Masbury required maximum effort, coasting down the other side also had its moments. Being freight locomotives, the 7Fs were not built for speed. If speed rose above about 40mph, 'shuttling' was produced between the engine and tender, as a result of the engine's wheels being fitted with cast iron balance weights with no provision for balancing the reciprocating masses. The weight of the train pressing down on the tender would compress the intermediate buffer springs until the intermediate buffing blocks made contact; hence the engine would push the tender away until the train bore down on the tender again. This 'shuttling' made for a distinctly uncomfortable footplate ride; passengers in the first coach would have felt the effects, too.

On 20th August 1960 an eleven-coach formation meant that the 2-8-0 train engine was over the maximum permitted load. Consequently, no pilot being available at

Evercreech Junction, Radstock shed hastily despatched one of its tank engines normally used for local shunting and freight banking duties,' Jinty' 0-6-0T No 47275, light engine to assist. Ivo photographed it en route for Evercreech Junction at Masbury summit under a caption commencing 'I wandered lonely as a cloud'. No.47275, travelling bunker first, then piloted No.53801 on eleven coaches primarily of ex-LNER stock, but with a Stanier second vehicle. Another unusual locomotive combination occurred on 12th August 1961. Ex-GWR Collett 0-6-0 No.3210 piloted Class 7F No.53806 over the Mendips with an elevencoach Southern Region rake with an LNER Thompson leading. A fortnight later No.53807 took a nine-coach Southern rake of Bulleid, Maunsell and BR Standard stock. By 9th September – very much at the tail end of the season - the reduced load was manageable by No.53810 with a Southern Region formation.

Having arrived at Bath at 2.10pm, eight minutes were allowed for reversal and locomotive change. North of Bath the train called at Gloucester Eastgate (3.16pm), Birmingham New Street (4.44pm), Nuneaton Abbey Street, Hinckley, then, having joined

No.53807, having taken over the train at Templecombe station, passes Templecombe No.3 Junction hauling a motley selection of Eastern Region stock on 25th June 1960. (Ivo Peters, courtesy Julian Peters)

the Midland main line at Wigston North Junction., Leicester London Road (6.00pm), Loughborough Midland, Trent, Nottingham Midland (6.51pm), Newark Castle and Lincoln St. Mark's (7.46pm). Then it was on to the former Great Central, calling at Market Rasen, Barnetby, Habrough, Healing, Grimsby Town and Grimsby Docks, finally running into Cleethorpes at 9.23pm.

he southbound train commenced its journey much earlier in the day than its northbound counterpart, at 7.00am. It missed out Healing, but called instead at Fiskerton. Unlike the northbound counterpart, it spent just under an hour at Birmingham New Street (11.36am to 12.34pm). The motive power into Bath was typically a 'Black Five', although 'Jubilee' No.45649 *Hawkins* was photographed passing Bath Junction with Southern carriages on an undated occasion in 1961. Arrival at Bath was at 2.02pm, departing at 2.10pm – precisely when the northbound service arrived.

Southbound from Bath, locomotive haulage varied over the three years. On 23rd and 30th July 1960 the train was 7F 2-8-0 hauled, piloted by a 2P 4-4-0. During the 1961 season the train was rostered for haulage by a Class 2P 4-4-0 piloting a Class 4F 0-6-0; this was the classic combination which featured throughout the 1930s, before Stanier Class 5 4-6-0s were permitted on the S&D from 1938. In the 1962 season BR Standard Class 4 4-6-0s replaced the 2Ps as pilots, a Standard Class 4 piloting a 4F being the mainstay. However, on at least two occasions in August the train engine was reportedly a 7F; certainly on the 25th photographer Norman Lockett captured BR Standard 4 Class No.75009 piloting No.53806 on the climb to Devonshire Tunnel, hauling eight LMS Stanier vehicles.

Arrival at Evercreech Junction was at 3.12pm, followed by Templecombe at 3.32pm, with three minutes then allowed for the locomotive change. Back on came the Class N (or U or Bulleid Pacific) in the meantime. Class N No.31855 took the train over at

At Axminster on Saturday 13th August 1960 SR 'Battle of Britain' Class 4-6-2 No.34063 229 Squadron departs with the northbound Cleethorpes train, on this occasion formed with six coaches from Exmouth (dep 10.40am SO) and five from Sidmouth (dep 11.07am SO). (Stephen Derek)





The hard work slogging up to Masbury Summit now over, No.53806 has an easier time taking the train past Wellow en route to Bath Green Park on 30th July 1960. (Ivo Peters, courtesy Julian Peters)

Templecombe on the penultimate weekend in 1962. Axminster and Seaton Junction followed at 4.21pm and 4.29pm respectively. Setting off from a standing start at Seaton Junction, it would have been a long, hard struggle up Seaton bank with a twelve-coach load at the busiest weekends.

Three minutes were allowed at Sidmouth Junction for the reversal and engine change before a 4.54pm departure. On 30th July 1960 an Eastern rake left Sidmouth Junction with four coaches for Sidmouth and six for Exmouth, tripled-headed by Standard Class 3 2-6-2T Nos.82018 and 82010 with Ivatt Class 2 2-6-2T No.41318. In 1961 it was booked for double heading by two BR Class 3 2-6-2Ts, splitting the train between them at Tipton St. Johns. The Sidmouth portion got away

25/08/62

No.75009 piloting No.53806

first, arriving at 5.17pm; the Exmouth portion completed its journey at 5.40pm. Respectively, these arrival times mirror precisely and within two minutes the 1936 schedules.

The Class N arrived light engine back at Exmouth Junction shed at 5.10pm, while the empty stock of the Sidmouth portion departed at 5.55pm for Exeter behind the Class 3 2-6-2T. In 1960 the stock of the Exmouth portion was stabled during the week at Littleham; on 18th June the four coaches of ex-LNER stock were berthed by Standard Class 3 2-6-2T No.82010.

ow quickly the pattern of holiday travel could change. In 1960 the trains were well filled, but by 1962 the train only ran during the high season – 28th July, the four Saturdays in August and 1st September.

On the following, last, Saturday the train ran southbound only, thereby avoiding the need to return the Eastern Region rake northwards as empty stock. The Southern rake ended up at the Exmouth/Sidmouth end.

Saturday 8th September 1962 was the final day of all long-distance services over the S&D, the daily 'Pines Express' then being routed via Southampton, Reading and Oxford to Birmingham. In 1963 Bournemouth still retained a good selection of summer Saturday services to the East Midlands and the North: Leeds, Derby, Bradford, two to Newcastle and one from Poole to Sheffield. These were all now routed via Reading and Oxford but excluded Birmingham, being diverted on to the former Great Central via Banbury and Woodford Halse – ironically another doomed railway to be closed in large measure in 1966. However, the Exmouth/Sidmouth-Cleethorpes, which might have run up the former Southern main line to Salisbury and, Basingstoke, thence across to Reading and onward, was not retained. Its short shelf-life of just three years was over.

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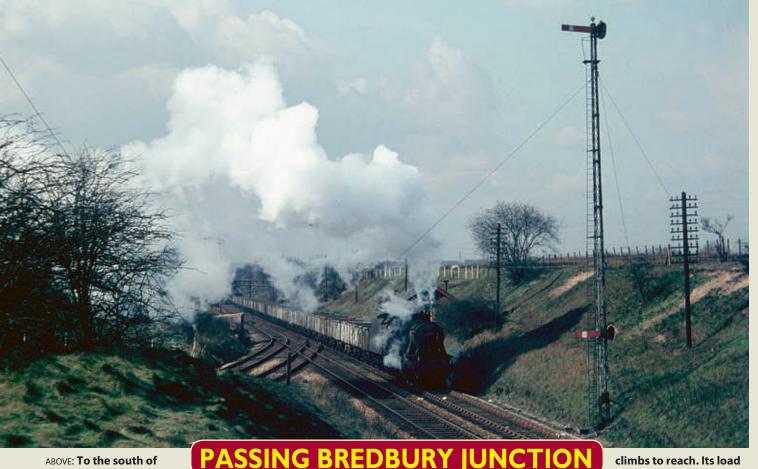
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The Somerset & Dorset Remembered Part 1 – Hugh Ballantyne.

Working Somerset & Dorset Steam – Derek Phillips. Steam on the Somerset & Dorset – G. A. Richardson. Somerset Steam – Michael Welch.

Up trains over the S&D Date **Photo location Rolling stock** Loco(s) Load 25/06/60 No.53807 8 Templecombe No.2 Jn. **LNER** 09/07/60 No.53807 8 Wyke Champflower LNER 30/07/60 No.53806 LNER other than two BR Mkls third and fourth Templecombe No.2 Jn. from the front LNER other than two BR MkI brakes and an LMS 13/08/60 No.53806 11 Templecombe No.2 Jn. Stanier sandwiched between them. Would have required assistance from Evercreech Jn. No.47275 piloting No.53801 20/08/60 11 Winsor Hill LNER, other than an LMS Stanier second vehicle. LNER other than a BR Mkl fourth from the front 27/08/60 No.53801 8 Evercreech Jn. 12/08/61 No.3210 piloting No.53806 11 Wellow Southern Region, with an LNER Thompson 26/08/61 No.53807 9 Winsor Hill, Midford Southern rake of Bulleid, Maunsell and BR Standard stock 09/09/61 No.53810 ? **Devonshire Tunnel** Southern rake of Bulleid, Maunsell and BR Standard stock 04/08/62 No.53810 Bath **I MS Stanier** 11/08/62 No.53808 10 Winsor Hill Southern rake with a number of BR Mark 1s and an LNER Gresley immediately behind the locomotive. 01/09/62 No.53810 8 Wellow LMS Stanier Down trains over the S&D 23/07/60 2P 4-4-0 piloting No.53810 Near Wellow 30/07/60 No.40634 piloting No.53801 Near Midford LNER stock 12/08/61 No.40569 piloting No.44422 Bath I NFR stock 19/08/61 No.40569 piloting No.44422 Midsomer Norton, Wincanton Southern Region rake No.40634 piloting No.44422 26/08/61 LNER stock Wellow 02/09/61 No.40634 piloting No.44417 Climbing to Devonshire Tunnel Southern Region rake 09/09/61 No.40634 piloting No.44422 Climbing to Devonshire Tunnel LNER stock 28/07/62 No.75009 piloting No.44417 9 LMS stock

Bath, climbing to Devonshire Tunnel



ABOVE: To the south of Manchester and around Stockport lay a complex network of lines, connections and junctions, constructed by different railways companies in the interests of competition or co-operation, as necessity was perceived. One such location was Bredbury Junction which was on the Cheshire Lines Committee route through Stockport Tiviot Dale to Woodley and then to Godley Junction where it met the Woodhead Route to Yorkshire. On 25th March 1966 LMS 8F 2-8-0 No.48476 stomps past the signal

PHOTOGRAPHS BY ALAN TYSON

box and across the junction of the connecting spur to the Great Central/Midland Joint line from Ashburys to Romiley and New Mills. That CLC repeating signal would need the attention of a lampman with a head for heights!

BELOW: Heading away eastwards No.48476 is about to pass under the GCR/MR line which the link from Bredbury Junction

can be seen to consist
of empty mineral wagons en route from
one of the power stations, probably
Fiddlers Ferry, to the south Yorkshire
coalfield for more of the black stuff.

coalfield for more of the black stuff.
Steam would give way to electric traction at Godley Junction for the onward journey via Woodhead. Since then we have lost steam motive power, the CLC route through Stockport, the Woodhead Route and its electrics and coal trains from home mines; Fiddlers Ferry's coal is





Stonehaven harbour where the whale's carcase finally made its landfall. (Author)

ohn Woods was an oilman although that is not the same sort of oilman as might be found in Aberdeen or Texas today. No, he had a small business in Dundee in the course of which he produced various types of oils from marine animals: fish, seals or whales. He rented land in East Dock Street from the Dundee Harbour Trustees and, as we shall see, he was something of a showman as well, which propensities came to the fore

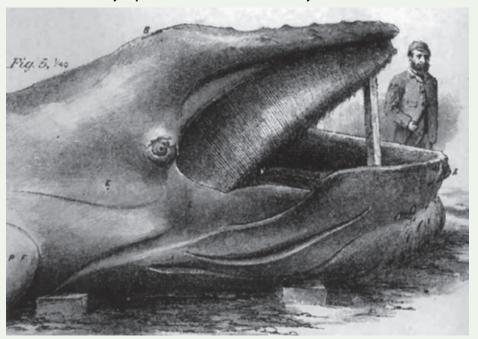
GREASY JOHNNY AND

ALISTAIR F. NISBET tells the story of a Dundee showman, his prize exhibit and its railway travels.

when a particularly large whale was seen in the River Tay at the end of December 1883. It was a male humpback, normally extremely rare in British waters but common elsewhere; they are sometimes known as 'singing whale' because of the mellifluous calls by which they can communicate over hundreds of miles. Nowadays they are a protected species. This was not the first occasion on which whales were known to have visited the Tay for "an immense shoal" of them was reported to have been seen on 15th October 1817. When this particular whale appeared it was probably following shoals of herring and sprats which were unusually abundant then.

Dundee was the country's premier whaling port at this time and once the humpback's presence became known some of the local whaling crews set off in pursuit of it and on New Year's Eve succeeded in landing harpoons in it but these had no effect other than sending it thrashing back out to the North Sea. The Weekly News for 5th January 1884 had a lengthy account of almost every minute of the chase until it had to be abandoned. It's carcase was eventually found floating some five miles south of the village of Gourdon, up the coast between Montrose and Stonehaven, by a local fishing boat's crew who, when they realised what how large it was, returned to port and sent one member to Montrose to hire a tug to bring it ashore. Meanwhile word of the find had leaked out and as a result three other Gourdon boats set off to try to tow it ashore themselves. They had managed to get ropes around it and a chain around its tail by the time the tug Storm King came up and persuaded its captain they could manage but he could stand by in case of difficulties. They did succeed in bringing the whale ashore at Stonehaven where it was auctioned - John Woods succeeded in purchasing it for £226.

A nineteenth century depiction of a whale such as the Tay one.





HE GREAT TAY WHALE

The whale was then towed by the steam tug Excelsior to Dundee's Camperdown Dock where a large crowd had gathered to see its arrival. To get it ashore, however, it had to be towed round to the Victoria Dock where there was a 70-ton crane - it was lifted tail first, the only mishap being when its tongue and several cervical vertebrae fell out and sank beneath the water. It was later recovered. Two lorries had been prepared by lashing them together side by side as a kind of hearse to carry it away but the springs of one gave way and a further lorry, specially strengthened to carry boilers, had to be found. No fewer than eighteen horses were required to haul the load to Mr. Woods's premises where the lorries became stuck in soft ground and had to be jacked up to release the whale. It had taken no less than 26 hours to travel the half mile and on arrival at 2.00am a naphtha flare was knocked over and set some loose oil alight. Only the most strenuous efforts prevented the remains being consumed in a spectacular funeral pyre.

The Courier & Argus notified all its readers on 14th January 1885 in the Public Notices column that the whale was now "on exhibition at Mr. Woods' oil establishment at the east end of Dock Street until further notice". In the same notice Mr. Woods apologised to the "Thousands of People disappointed on Saturday but circumstances over which he had no control (and which will be fully explained in this Day's Papers) prevented him from exhibiting it earlier. Having been thoroughly cleansed and properly laid out the Huge Monster can now be Seen to the Greatest advantages. Admission 9 am to 4 pm one

shilling 4 pm to 9 pm sixpence".

Beneath the advertisement about the exhibition the Dundee & Arbroath Joint Railway had inserted its own heading 'Railway Arrangements' which intimated that it was "issuing Return Tickets at Single Fare to Parties coming to see the whale from Arbroath and Intermediate stations up to Monifieth inclusive by the 1128am and 2.10pm Trains from Arbroath today. Parties by Rail will be admitted at half price on showing their Railway Tickets".

The whale's remains were seen by no fewer than 12,000 people on the first day of the exhibition and it was not long before William McGonagall, the local poet, had published his ode to 'The Famous Tay Whale' which began: "Twas in the month of December, and in the

year 1883,

That a monster whale came to Dundee, Resolved for a few days to sport and play, And devour the small fishes in the silvery Tay."

According to the *Courier & Argus* the Caledonian Railway was also running a special train at 2.30pm to Dundee on that opening day to see the whale and returning at 9.30pm, stopping at all the intermediate stations. Presumably it started from Perth although the report gave no clues to that. On the 12th special trains were run from Arbroath, Forfar, Perth and Kirriemuir with tickets at reduced prices.

Within a day or two the proprietor of the *Dundee Advertiser* had made a speech at the Dundee Sailors' Festival in which he It is likely that the Tay Whale would have crossed the Tay by the ferry to Tayport and then travelled through Fife, thus maximising the distance covered on the North British's tracks. The route through Fife would have taken it from Thornton Junction to Lochgelly and on to Dunfermline. Lochgelly is seen in the 1950s with J38 0-6-0 No.65932 passing on a goods service. (W. A. C. Smith, courtesy The Transport Treasury)

implied that the whale was smelly, causing Mr. Woods to write to him complaining that this could affect the number of visitors and mean he might not recoup the $\pounds 400$ which he had laid out to date. Furthermore the Sanitary Inspector had expressed the opinion that the carcase had no disagreeable smell whatever and it would be three to four weeks before this might happen. John Woods added that, provided he was able to cover all his costs, he intended to present the whale to the Provost for the new Museum.

On 19th January *The Courier & Argus* noted that another special train was to be run from Perth to Dundee at 2.30pm and returning at 9.15pm, stopping at all the intermediate stations to allow residents the opportunity to see the whale. More special excursions ran from various Angus and Fife towns (passengers from the latter having to make use of the ferry from Tayport) which ensured that during the first two weeks some 50,000 people had viewed it.

Dissection

Long before any presentation to the Museum, as promised by Mr. Woods, could take place the whale's insides were to be investigated

by one of the country's leading biologists, Professor Struthers of Aberdeen University, who came to Dundee on 25th January to start a process of dissection while the whale was still in the oil yard, aided by his two assistants and some local whalers who were, of course, well used to this sort of activity. Professor Sir John Struthers MD LLD FRCSE occupied the chair of anatomy at the University of Aberdeen with distinction for no less than 26 years from 1863 until his death in 1899 at the age of 76.

As ever the proprietor was willing to make a bit out of this and announced that spectators would be very welcome, provided they paid for the privilege – this time they were expected to stump up 2s 6d a head, rather more than the charge for the ordinary exhibition had been. Some of those who attended were medical gentlemen, clergymen and members of the Town Council, while the band of the 1st Forfarshire Rifle Volunteers played "appropriate music" to accompany the process, much to the Professor's annoyance.

Many vertebrae and other bones were also removed for examination while the remainder was embalmed with vast quantities of carbolic acid, stuffed with straw; once the flesh had been removed the public analyst completed the process of embalming and the skin was sewn up. A wooden frame was also inserted in place of the missing bones and then the remains were transferred to a special cradle which had been constructed to enable to the carcase to be moved around the country.

The columns of the *Dundee Advertiser* described in great detail what had happened during the day and also mentioned that further special trains were being run to Dundee in connection with the event – clearly the railway

When the whale went from Glasgow to Liverpool the NB would again have tried to use its own tracks as much as possible, probably sending it via Edinburgh and the Waverley Route to Carlisle. This is Newtongrange on the latter line. (Norrie Forrest, courtesy The Transport Treasury)



This is all that now remains of the College Goods station in Glasgow – a retaining wall which had been listed. The whale was unloaded here for its public display to the Glaswegian population. (Thomas Nugent via Geograph)

company managers were alive to the chances of making money too. All this work was said to be in preparation for the whale to be transported for further exhibitions in Glasgow, Edinburgh, Manchester, Liverpool, London etc although it soon emerged that Woods had decided to take his prize to be exhibited in Aberdeen before it went elsewhere – perhaps this was to allow the Professor a further chance to see the beast.

The cradle was constructed so as to fit "within the railway gauge and bridges"; as the North British Railway's loading gauge was a somewhat tighter envelope than that of many of the English companies, or even the Caledonian, the cradle would have had to be very precisely made. With John Woods's premises being in East Dock Street it would have been very convenient for the ensemble to have been taken to the Dundee & Arbroath Joint's East Station, or rather the goods yard,

where it could be transferred to three large wagons which had been provided by the NBR.

Off to Aberdeen

According to one report a special train had been chartered and was to leave at midnight, the cradle having been towed to the goods yard by twenty horses; however, it seems more likely that the journey actually took place on the regular 3.15pm service from the Tay Bridge goods station. Either way it went covered over with a tarpaulin and those who flocked to the stations en route would have seen nothing apart from a large shape stretched across three adjoining wagons. It was apparently said to have been accompanied by a "talking seal" which had been caught some time ago by a Broughty Ferry fisherman who had allegedly tamed it and taught it to perform tricks including making noises like human words. Some people were sceptical





about the whale and *The Scotsman* allegedly carried a report which compared it with a London circus owner's attempt to pass off a "piebald elephant" as genuine.

Once the wagons had arrived in Aberdeen the unloading process began, the wagons presumably having been specially placed in an almost straight siding for neither the cradle nor its load was likely to have been particularly flexible. A large number of men had travelled with the train and it was expected that the unloading process would take the better part of ten hours with work continuing through the whole night. As well as the cradle wagons a further two vehicles loaded with logs, timber and other appliances, had brought a 'large and substantial lorry' which belonged to the North British. The whale was said at this time to weigh some 15 tons and measured 40ft x 12ft. It therefore required plenty of horsepower to move it and some 20 to 30 horses were hired from Mather Howie & Co. to get it to the Recreation Ground where it remained for five days, being visited by 20,000 folk.

On the final day of its exhibition in Aberdeen the *Aberdeen Weekly Journal* carried an advert advising the public that this was "Positively the last day to see the whale – Naturalists and Scientists cordially invited 9 am to 4 pm and 4 pm to 10 pm. 6d. Parties to whom the Exhibitors are indebted will please present their accounts this afternoon."

Away to Glasgow

This was because it was time for the humpback (or hunchback as one newspaper managed to dub it) to resume its travels, Glasgow being its first destination. This time a special train was hired, leaving in the early hours of 6th February and the next day later it arrived back at the Tay Bridge station en route to Glasgow. Because the NB had provided the vehicle and the destination was the same company's College goods yard, it is reasonable to assume that it routed the train over its own tracks as much as possible. This

From Liverpool to Manchester it seems likely that the LYR would have used its own route – this is Hindley North with LMS 2-6-0 No.42960 on an eastbound freight on 4th May 1964. (Larry Fullwood, courtesy The Transport Treasury)

meant heading for Dundee via Montrose and Arbroath; as the replacement Tay Bridge had not yet been built it would almost certainly have then been tripped back to Broughty Ferry to take to the water via Tayport goods ferry which had been reinstated after the 1879 fall of the original bridge. From there it would have gone by Leuchars to Thornton Junction, Dunfermline and Alloa to Stirling where the train would have had to use the Caledonian's tracks to Larbert in order to reach the former Edinburgh & Glasgow main line and thence Glasgow.

Arriving at about 3.00am the whale was unloaded on to a "specially built bogie" and hauled by two traction engines to the showground in New City Road where a large crowd was waiting. A "special wire" at 2.00pm from Glasgow on 7th February led to the Dundee Advertiser carrying a curious report the next day and even now it has not been possible to establish whether or not it was a hoax. Prof. Struthers had not been able to complete his dissection while the whale was in Aberdeen and he now proposed to do so in Glasgow. Accordingly when he arrived he started to open the stomach, in the presence of a number of other University and scientific men, by making a large incision. Allegedly it was at this point that a human being was found "lying in an easy position in a torpid or comatose state resembling catalepsy". There were also said to be scores of dead herring and sprats, a large pocket book and the glass of an oil lamp (which was blackened with smoke) exactly similar to those used in the Tay Ferry

Attempts were made to waken the sleeping man and the Procurator Fiscal was informed.

The Revd. John Smith declared, in the most solemn and emphatic manner, that the man was none other than the prophet Jonah and that "the whale and the unfaithful prophet had both been miraculously preserved and been diverted to these shores as a triumphant refutation of modern scepticism".

No matter that they must have been some thousands of years old nor that the whale must have found it a trifle difficult to get from the Sea of Galilee to the North Sea. However, as soon as William Sanderson of Newport on Tay, who was superintending the exhibition, arrived on the scene he recognised the recumbent person – a Dundee tramp known somewhat unpopularly as the 'Autocrat of the Tay Ferries'. When several others disputed this the pocket book was investigated and some musty papers were found - our reverend gentleman was convinced that the first one would prove to be banknotes from Tarshesh or Nineveh. On closer inspection, however, it was found to be an account for '10 gallons of inferior saloon oil'. The remaining sheets turned out to be notes of things to write tracts about such as 'how to provoke patient people' and 'how to keep saloon passengers from knowing when the gangway is down'. People then tried to waken the sleeper with electrical shocks from two 16hp galvanic batteries and, as this had no effect, plans were being made to fire guns close to his ear. Nothing more was ever reported about the sleeping figure although speculation remains as to whether he had in fact crawled into a cavity in the beast while its train was at rest in Dundee with the intention of seeing what lav inside and had become trapped when the train restarted and had then fallen into a deep sleep there.

By 19th February it was reported that about 25,000 folk had paid their entrance fee to see the whale and that amongst those the previous day were 300 from the Glasgow Reformatory School for Girls and the Industrial School for Girls in Maryhill. The Chairman of the Delinquency Board went along too as



Also on the LYR route to Manchester is Rainford Junction: straight ahead to Liverpool, left to St. Helens (LNWR), right to Skelmersdale and Ormskirk. (Norrie Forrest, courtesy The Transport Treasury)

did between 500 and 600 excursionists on a special train from Dumbarton, Alexandria and Balloch, while another special from Airdrie and Coatbridge had brought 900 more. The whale's last week in Glasgow began on 25th February and on the Saturday preceding no fewer than 4,000 schoolchildren had seen it together with a further 1,500 excursionists from Ayr, Ardrossan and Kilmarnock.

Liverpool-bound

When its time was over the whale was transported back to College Street Goods where it was loaded on to three of the North British's six-wheeled flat wagons, normally used for carrying timber, for transport to Liverpool's North Docks Station, all this being done under the personal superintendence of Mr. Graham, the railway company's Mineral

Goods Manager. The train left at 4.00am on 7th March reaching Merseyside the following day. Although no details of the route are available it is reasonable to assume that the North British would wish once again to maximise the mileage on its own tracks rather than those of either the Glasgow & South Western or Caledonian Railways and that it must therefore have travelled via the E&GR route to Edinburgh and thence over the Waverley line to Carlisle before being handed over to the London & North Western and finally the Lancashire & Yorkshire for the rest of the journey.

Once dismounted from the railway wagons the cradle left the railway yard at 10.15am and was hauled to the exhibition ground at Lowhill by Messrs. Boyes's traction engine, causing traffic problems while en route; these led to its

appearance in court, or rather the Manager of the Tay Whale Company, William Anderson, had to appear. On the 12th March he was summonsed for "having permitted an engine and two wagons to be driven on the footway in Low Hill on Tuesday the 4th".

In his evidence PC 716 said that the vehicles had not been able to get around the tramcars because of their great width and had therefore been taken on to the footway and had damaged the flagstones. The defence agreed with the facts but said it was a peculiar case, the sheer weight of the whale being 26 tons (including its carriage, of course). His client had been anxious not to cause further delay to the trams and in any case some of the flags were already cracked. The defendant had said he would pay for any additional damage sustained by his actions. The bench agreed to hold the case over for a few days while the damage was repaired and when the magistrates resumed the hearing Mr. Anderson told them that "the repairs had cost twenty-two shillings and sixpence and the summons was thereupon withdrawn".

On arrival at the exhibition ground the cradle was jacked off the two lorries and placed on timber rollers so that it could be pushed into its allotted place by the traction engine once the tramway traffic had ceased. Whilst the whale was on show in Liverpool one of the Glasgow evening papers carried a note on 10th March suggesting that Hull threatened to rival Dundee for "the honour of landing the biggest fish", thus revealing that their reporter was, like many others, still unsure of the difference between a fish and a mammal

Once the whale had been to Liverpool, Manchester and Newcastle it was brought back to Scotland, probably via the North Eastern and North British East Coast route. This is D49 4-4-0 No.246 Morayshire at Cockburnspath in July 1936. (George Barlow, courtesy The Transport Treasury)





The skeleton of the whale has been hung for all to see in Dundee's Museum (now The McManus) since it was finally returned from Aberdeen. (Author)

Manchester then Tyneside

Once the whale had been seen by as many as possible in Liverpool it was to set off on its travels again, this time by the Cheshire Lines Committee route to Manchester where it arrived on 10th April. Once it had been unloaded from the rail wagons it was hauled from the Central goods station by another "Powerful Traction Engine", watched as always by a large crowd of spectators who, as always, saw nothing but a bulky shape under a tarpaulin. Four days later it was announced to the public that it would be on show in the Pomona Gardens during the Easter holidays.

A curious report was carried in a number of papers on 3rd May which implied that the whale had been "put under arrestment and was still in the hands of the railway company". No reason for this action was advanced, however. Nevertheless a letter from John Woods appeared in the *Dundee Advertiser* for 6th May, trying to scotch "those previously reported rumours that the Tay Whale had been arrested at the Manchester Railway Station' for there had been a paragraph in the previous Friday's Evening Telegraph to this effect. He stressed that there was no foundation whatsoever in the rumour for the whale had left Manchester on Thursday evening of 1st May and had reached Newcastle on Friday the 2nd where it was intended that it should be exhibited for a short period in the Haymarket before its removal to Edinburgh. Greasy Johnny ended his epistle with the words "The exhibition is now being conducted under my own superintendence". Although it went to Newcastle almost nothing is recorded about its visit here, the novelty presumably having worn off.

On 19th May the *Aberdeen Weekly Journal* and other papers noted that another whale had been landed at Stonehaven by the great line fishing boat *Sultan* (Alex Christie, skipper) and competition for the carcase was almost as fierce as for the Tay Whale although it was sold eventually to a fish curer for only £2 – remember that Woods had laid out £226. One

is led to wonder how much would such a catch fetch 130 years later?

Edinburgh and back to Dundee then Aberdeen

Once its time on Tyneside was over the whale was back on the road, or rather rails, to Edinburgh on 4th June after the City Council were reported to have granted, on 31st May, a licence for its exhibition. Once again there was little reporting of the visit and the whale was back in Dundee on 24th July where, on 1st August, the *Courier & Argus* was reporting that the long period of exhibition was about to come to an end, after which the skeleton would return to Aberdeen "to be macerated and prepared for being placed in our Museum... As this is now certainly the last opportunity for seeing the whale all who have not seen it should lose no time in paying it a visit".

Professor Struthers came back again on 7th August and completed the removal of the skull and remaining bones. It was then announced that Mr. Woods had offered to let the Museum have not only the skeleton but also the valuable bone, weighing about 2cwt, in the mammal "so that the specimen might be complete".

Once the Professor and his assistants had finally prepared the whale for its new abode in the Museum it was conveyed to the North British's goods station in Aberdeen in vehicles provided by Mather Howey & Co. The skeleton was not being transported in one piece, however, and was packed, in sections, in crates which were loaded on to two NBR wagons. These were then marshalled into a regular goods departure from Aberdeen at 2.50pm on 28th December 1889 and reached the Tay Bridge in the early evening. It was then transported to the Museum where it was reassembled into one whole skeleton under the direction of Mr. Gibb, the anatomical assistant in Marischal College who had overseen the packing and loading up. I recall seeing it there as a child although its location was moved during the restoration of the building a few years ago.

Other activities of John Woods

Mr. Woods was nothing if not a showman and the *Dundee Advertiser* of 15th January 1886 was announcing that "The three Polar bears which were brought to Dundee from the Davis Straits by the whalers *Terra Nova* and *Arctic* have just been sold by Mr. Stephen to Mr. John Woods. The bears have thriven well during their confinement in the Arctic yard and are now very much bigger and stronger than when they arrived nearly three months ago".

Another report said that a basking shark had been captured on 1st September 1886 by the steam trawler *Terrible* about twenty miles east of the Bell Rock lighthouse and was said to have been purchased by several gentlemen from Dundee. It was to be loaded onto two large lorries at the Earl Grey Dock in Dundee and pulled by ten horses to the vacant ground in Guthrie Street, adjacent to the Wombwell menagerie. After the exhibition was over the shark was acquired by John Woods who proposed to take it on tour to Glasgow and other large towns before handing it over to Professor D'Arcy Thompson of the Biological Dept. of University College. Nothing came of the tour, however; whether the railways were reluctant to provide the appropriate transport facilities this time or whether other places showed little appetite for another exhibition is unclear.

John Woods's family life was badly disrupted when, in November 1888, he sought a divorce on the grounds of his wife's infidelity with a man named Charles Moodie – they had married ten years previously when he was 58 and she 38. He had come home and found them in bed together; he then beat Moodie while his wife just lay there and took no notice! He put her out of the house and she had not been seen since. The divorce was granted.

Obituary

The Courier & Argus reported on 27th November 1895 that John Woods had died at his home and went on to review some of his activities, noting that he had been married three times and was survived by a widow and family. The Dundee Piper on 6th December recalled him thus: "Ah me! how the old celebrities of Dundee do move off to the silent land. Here is now John Woods of Tay Whale fame, guttered to his fathers. John then achieved a celebrity he never would have had but for his purchase of the playful finner exactly twelve years ago."

From time to time whales have continued to venture into the Tay although none has ever achieved the fame as did the one of 1884. However, in recent years a pod of bottlenose dolphins has taken up summer residence in the area between Broughty Ferry and Tayport but their appearances in 2013 appeared to be limited to a single performance; somewhat ironically this occurred at the same time as your scribe was watching the well-known pod in the Moray Firth.

Perhaps the last word should go to Captain Para Handy in Neil Munro's tales of the *Vital Spark* (a Clyde 'Puffer') when on one occasion the crew found a dead whale weighing 5½ tons. Having surrounded it with tarpaulins they charged 6d a viewing but after four days they were ordered by the local authorities to remove it, something well beyond their capabilities.



The Lancaster & Carlisle Railway's most famous setting in the Westmorland fells: LMS Class 5 4-6-0 No.45038 marches its express parcels train up the hill past Shap Wells on the last stretch of the 1 in 75 climb to the summit on 25th August 1967. (David Idle)

1846: Riots, strikes, trial trips and openings

The year started badly. With the grip of winter over, great efforts were made to complete the Lancaster & Carlisle Railway as soon as possible. As one newspaper put it, "the most determined spirit of perseverance and industry appears to prevail along the whole line". Optimism, however, was to be dampened in February. *The Caledonian Mercury*, 16th February, at its base in Edinburgh, received a report from a correspondent of a dire situation in far-off Penrith.

"The banks and shops have been closed here for the most part of today, and all business has been suspended in consequence of serious disturbances amongst the labourers on the Lancaster and Carlisle Railway. Upwards of two thousand railway labourers, who are employed between Kendal and Penrith, began to assemble at an early hour this morning in this neighbourhood, with the view of driving the Irish from the line. The labourers were armed with clubs and all sorts of weapons."

A lodging house in Penrith was attacked, leading to the deaths of two Irish labourers, with the yeoman cavalry of Westmorland and Cumberland being called upon to restore order. The intrepid correspondent reported that at nine o'clock peace reigned and that most of the English labourers had retreated to their homes. It was still feared that the Irish labourers would seek retribution and to obviate this the cavalry was on stand-by through the night. At eleven o'clock all was quiet, which prompted the correspondent to pen a few more details in his despatch:

THE FORMATIVE YEARS OF THE LAN

BY JEFFREY WELLS

"The disturbance commenced on Tuesday, at midday, at the cutting at Hugh's Crag. It appears that an Irishman was requested by his onlooker, or ganger, to do some particular

work, which he refused, and they got to hard words, and a blow or two was struck."

Peace was restored in the town by dint of the presence of the cavalry and the fact that the Riot Act had been read out by Lieutenant-Colonel Hasell, with the full support of the local

Seven miles north of Carnforth, Milnthorpe claimed a modicum of fame in its inveterate comb-making industry; the village was also a route focus in coaching days, an ancient port and an important venue for the farming fraternity. Milnthorpe station lay about one mile east of the village. The 1850–70 OS map reveals that the station layout consisted of a stone station master's house adjoining the ticket office on the down side. A single goods shed, also on the down side, was sited further to the south of the passenger station. By 1890 an additional goods shed was sited further south than the first, plus a goods shed with cattle pens set an angle to the main line on the up side. The photograph shows the position of the footbridge at the northern end of the station and a modest shelter for the convenience of the public on the up platform. Note the vintage coach which has been shunted into a short siding adjacent to the down platform, also the stone overbridge carrying a lane between Milnthorpe and the even smaller settlement of Crooklands. Milnthorpe station closed on 1st July 1968. (Author's Collection)





CASTER & CARLISLE RAILWAY



magistrates. Nevertheless, two or three days' work had been lost during the disturbances. Prior to the full-scale rioting, many of the labourers struck for an advance in wages, that of 4d a day, and for their wages to be paid on a fortnightly basis. When their demands were not immediately acceded to, this gave the men an excuse to set upon each other and terrorise the inhabitants of Penrith.

In March the perpetrators of the fatal assault on two Irish men were brought before Justice Coleridge with the result that heavy sentences were meted out: fifteen years' deportation for one man, eighteen months' and twelve months' imprisonment for two others.

This did not end the trouble in Penrith. On 15th March an estimated thousand labourers went on strike on learning that they were expected to work a ten and a half hour day, exclusive of meal times. The contractors were being pushed to complete their work; the workforce was expected to work harder for longer periods of time. On this occasion, past enmities forgotten, Irish and English labourers united in their stoppage of work. *The Morning Post*, 17th March, ended its report on the strike by gloomily adding that "Very little work was done on Saturday, and thus nearly a week of fine weather has been lost."

Despite these setbacks, adequate progress towards completion occurred during the summer months. *The Blackburn Standard*, 2nd September, apprised readers of the latest developments in Lancaster: "On Wednesday last [26th August] much interest was excited in the town and along the line, in consequence of the directors having fixed the day for making a trip of inspection. About three [o'clock], the board, accompanied by S. E. Holden, Esq., Secretary, and J. E. Worthington, Esq., the engineer, started from the Lancaster Station, crossed the bridge over the Lune, and proceeded to Penrith, where a public meeting

of the company would take place... It should be mentioned that in the construction of the footwalk over the Lune bridge, every care is being taken to provide for the comfort and accommodation of the public. The walk does not project from the side, but is taken out of the general width of the bridge – indeed, a fifth rib has been added for this express purpose. The walk will be cut off from the railroad by a substantial railing..."

General Pasley inspected the line between Lancaster and Kendal on 20th September "and gave his certificate of approval for one line, the eastern, and the Directors of the Lancaster & Carlisle, in conjunction with those of the Kendal & Windermere Railway, appointed Monday [28th September] for the active commencement of traffic on the line."

According to The Lancaster Gazette, 26th September, the opening ceremony took place on Monday 21st September. To mark the occasion in Lancaster, the Lune bridge was bedecked with streamers and crowded with spectators along the footway and at Lancaster station. The inaugural train consisted of twelve carriages, four of each class, "drawn up in front of the station at the appointed hour of one". First class carriages were "claret-coloured and truly elegant, within and without". Second and third class carriages were painted green and were also "more handsome and commodious than hitherto seen". The engines were "brilliant" and bore names of local interest, such as Bela and Dalemain.

Departure was delayed, however, due to the distances invited guests had travelled from their homes. In due course, the *Dalemain* was hooked on and was ready to begin the inaugural journey by two o'clock, the footplate occupied by E. W. Hasell (Chairman), Mr. Nichoson (of Kendal) and J. E. Errington, the engineer.

Lancaster Castle station, designed by William Tite, was the company's principal station, opened on 22nd September 1846. In 1858 an extension to the original was added to a design by Thomas Worthington, while in keeping with the increasing importance of the station enlargements to the original building on the east side were made in 1902, the platform awnings dating from this time. In this view we see a portion of the 1858 extension and one of the prosaic 1902 awnings. Interestingly, the zero milepost on Platform 4 (from which this photograph was taken) marks the beginning of the L&CR and at the same time the end of the Lancaster & Preston Railway at an end-on junction within the station. A southbound freight train glides through the Castle station on the through line, headed by Class 5MT 4-6-0 No.45426 on a sunny day in north Lancashire. Behind the footbridge the overbridge carrying Castle Park Road spans six tracks which run through the station. (Author's Collection)

The train arrived at the junction for Kendal (Oxenholme) and headed for Kendal. "As the train approached the terminus, the scene became very animated. The slope from the Castle, north and east, was literally packed with human beings, and the road side all along was thickly studded with anxious spectators... At the terminus the train was welcomed by loud hurrahs mingled with the shrill notes of the martial music."

A déjeuner was laid on in the Assembly Rooms of the Whitehall Buildings in Kendal where 200 guests were seated, presided over by the town's mayor Cornelius Nicholson. At six o'clock the train left Kendal on the return journey to Lancaster reaching the town at dusk, having taken about an hour. A dinner was then attended by company directors at Pritt's King's Arms.



Oxenholme station, looking north, on 17th February 1962. Rebuilt LMS 'Patriot' 4-6-0 No.45545 Planet brings a train of vans into the west side of the island platform, generally used by Windermere branch trains. (Alan Tyson)

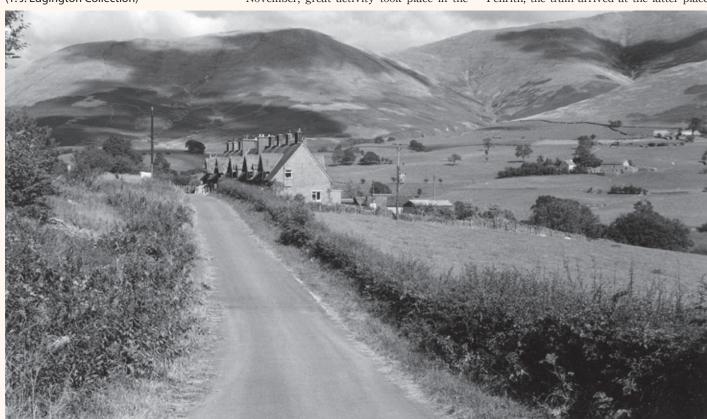
Lancaster & Carlisle Railway workers' cottages at Low Gill, built c1859 and photographed on 15th September 1986. The railway is on the left, heading into the upper Lune Gorge. Low Gill had been the junction for the branch from Ingleton, though that had lost its regular passenger service in 1954; the station itself closed in 1960. (T. J. Edgington Collection)

Another adventure by train was recorded by The Morning Post, 21st October. "On Thursday night [15th October] an engine and tender with three carriages attached, driven by G. B. Worthington Esq., proceeded on the Lancaster and Carlisle line as far as Shap, where it arrived by ten o'clock. This, we believe, is the first occasion on which an engine has crossed the magnificent viaduct at Docker Garth. The same train returned yesterday morning, and proceeded to Lancaster, conveying Colonel Lowther MP, E. N. Hasell Esq., and a number of other gentlemen, to a meeting of the projectors in Lancaster.'

Following a spell of wintry weather in November, great activity took place in the

pursuit of completion. On Friday morning, 6th November, the directors were conveyed along the line from Shap to Lancaster. All was ready for the Government inspector to survey the line but General Pasley had retired and it was necessary to find another inspector to take his place. The much-anticipated event was reported in The Morning Post on 8th November:

"On Saturday morning [5th November] Captain Coddington, the Government Inspector, accompanied by a number of directors, engineers, and shareholders, commenced his inspection of the line near Kendal, in a train of four carriages. Having inspected the line between Kendal and Penrith, the train arrived at the latter place





about ten o'clock, and having remained there a short time, it proceeded on to Carlisle, where it did not arrive until after three o'clock in consequence of slight accident to the engine near Plumpton."

Captain Coddington poured praise on seeing "a very complete and efficient line". It was arranged, yet again, to open the line on 15th December. *The Preston Guardian*, 19th December, found plenty of space to describe the line and the occasion of the grand opening.

"The formal opening of the line to the public took place on Tuesday morning last, when the through train for Carlisle started from Lancaster at 11 o'clock. The train consisted of nine carriages, drawn by a new and beautiful engine called the *Dalemain*, and preceded by a pilot engine, the *Greystroke*. Few persons besides those who had tickets for the excursion attended at Lancaster, to witness the departure of the train; and when it left the station not a single cheer followed it from the Lancastrians."

"The train reached Oxenholme station (Penny Street) at a few minutes after 12 o'clock, where it received an accession of 50 passengers; it halted at Penrith at 5 minutes before 2, where the utmost enthusiasm, to welcome its approach, was displayed by the inhabitants; and at 10 minutes past 3 o'clock it entered Carlisle. At half past five o'clock, the directors and their friends, upwards of two hundred in number, partook of a splendid dinner prepared at the Assembly-room of the Arthenium, Carlisle."

On the Wednesday evening the contractors Messrs. Stephenson and MacKenzie & Co., gave a lavish dinner to the engineers, contractors, clerks, etc, to the number of two hundred.

The sense of achievement felt by all must have been tempered by the number of accidents and fatalities which had occurred during construction. Those of 1846 were The southbound climb to Shap Summit was not as demanding but still required some effort. BR 'Britannia' Pacific No.70039 (Sir Christopher Wren) pounds past Shap Quarry with the 14.00 Glasgow Central–Manchester Victoria on 15th July 1967. (David Idle)

no less appalling in number and causes. The following is a summary: January – 1, February – 1, June – 4, August – 1. In addition to the fatalities to men and boys employed on construction, one of the first fatal accidents at a temporary level crossing involved a young woman on her way to market.

Main features of the line – an overview in 1846

The Daily News, 8th May, gave readers an interesting description of the chief engineering features of the line, and no apology is given for presenting an abridged version of the account as witnessed by the newspaper's 'Special Correspondent'.

In May of that year the number of men employed on construction approximated to 7,000, while 600 horses were in harness and four contractors' locomotives in use. About 30 miles of permanent way were laid. "The total number of bridges on the line, exclusive of culverts, cattle arches, etc, is 180, of which considerably more than three-fourths are finished. A number of the engines, carriages, and waggons, are now quite finished, and are ready to be put on the line."

"The line commences by a junction with the Lancaster & Preston Railway, about one mile south of Lancaster; it then proceeds round by the west of Lancaster, through a very deep cutting, which is nearly completed, and thence it is carried by two great embankments of considerable length, to the River Lune...The second embankment is ended by a row of eight stone and brick arches (of 33 feet span), leading to the viaduct over the Lune. The viaduct consists of three arches of 120 feet span, and when finished will have a grand and imposing effect...The turning of the centres is now begun, but there is still a vast amount of timber work to do."

Between two and three miles beyond the viaduct, permanent rails had been laid for about five miles. "This leads to a large bridge over the Milnthorpe coach-road, which is in a very backward state, and seems to be much neglected." [The bridge referred to is located about $1\frac{1}{2}$ miles north of Carnforth, the only bridge of any significance spanning the A6 trunk road.] "From this point to Kendal, a distance of fourteen miles, the works are well laid on, and the permanent way has been laid on several lengths."

The correspondent reached Oxenholme, although he fails to mention the place by name. "The Lancaster and Carlisle line passes Kendal one mile south of the town. Here, the Kendal and Windermere Railway branches out and proceeds directly through Kendal, onward to the upper end of Windermere. It was the intention of the promoters of this line to have it opened contemporaneously with the Lancaster and Carlisle, but this is now doubtful; the works are heavy, and were only commenced last autumn..."

There was heavy engineering work on the main line beyond Kendal, "the country for upwards of twenty miles, being very hilly and mountainous, requiring the best engineering talent and experience..." A list of heavy works included the Docker-Garth Viaduct, "consisting of six arches of fifty feet span, and seventy-five feet high, nearly completed; the Borrow Bridge Viaduct, consisting of three arches of forty-five feet span, and sixty feet high, completed; a heavy excavation, at Grey-ridge Summit [Grayrigg Summit], well forward; an excavation of 1,000,000 cubic yards at Shap, of which more



than three-fourths is taken out. At this point there was a considerable quantity of hard rock removed by gunpowder'; at Clifton there is an embankment requiring a deposit of 300,000 cubic yards".

At the village of Clifton "the line passes close to the gates of the avenue leading to Lowther Castle, the residence of the Earl of Lonsdale". A station was to be erected at Clifton "to suit the convenience of his lordship and the Lowther tenantry". This stretch of line passed through many miles of the Lowther estate and was at first opposed by the Earl but for reasons best known to him his attitude changed and he became a fervent supporter of the railway.

"A short distance beyond Clifton the line is carried over the river Lowther on a

magnificent viaduct of six arches, 60 feet wide and 100 feet high, just completed. It has great architectural beauty, and is the handsomest piece of workmanship on the whole line."

To the south of Penrith the line was carried over the River Eamont "on a bridge consisting of four arches of fifty feet span, and seventy feet high, which is also completed". At Penrith, the small town which had experienced so much disturbance earlier in the year, "the labourers were busily clearing away the ruins of the ancient castle of Penrith to make room for the station – such is the ruthlessness of the railway system" lamented the correspondent "which respects neither the erections of modern times, nor the relics of 'days gone by'."

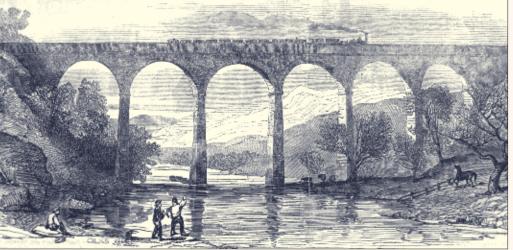
The distance between Penrith and Carlisle was eighteen miles. The works between the

LMS 'Jubilee' 4-6-0 No.45719 Glorious speeds across Dillicar troughs picking up water in readiness for the attack on the climb from Tebay to Shap Summit with a Creative Tourist Agents' Conference special from Manchester Victoria on Saturday 7th June 1952. (Eric Bruton/Pendragon Collection)

two places were comparatively light and several miles were laid on the level. "This portion is admirably laid out, and runs the whole way to Carlisle in nearly a straight line. It is also well forward, and several locomotives are at work, assisting in the ballasting operations and consolidating the road."

It was at Carlisle that the "great general terminus is to be built, to accommodate the traffic of the Caledonian, the Lancaster and Carlisle, the Newcastle and Carlisle, and the Maryport and Carlisle Railways, the expense of which is to be shared by all". In May 1846 a Bill seeking to authorise the station had been applied for. Anticipated to be "one of the handsomest in England", Carlisle station was to occupy a sit known as Head's Bank and to cost almost £100,000. "The good folks of Carlisle are much interested in it, notwithstanding it will interfere with their gas works (but for which ample compensation will, no doubt, be made), as it will greatly improve the appearance of the town, and render it a principal terminus."

The Lowther Viaduct carried the railway over the valley of the River Lowther and represented the highest viaduct between Lancaster and Carlisle. David Joy (Main Line Over Shap) notes that the stone for the masonry was quarried locally and before the viaduct was completed "a temporary wooden bridge, a hundred feet high, was thrown across the water so that clay could be moved from a cutting on the north bank to form an embankment on the southern side". Contemporary opinion described it as "a noble work". Furthermore, "it is unrivalled for boldness and beauty of proportion; and consists of seven semi-circular arches of 60 feet span, supported on piers 8 feet thickness at the top, and increasing to 13 feet 6 inches at the base. Its total length is about 500 feet". (Illustrated London News)



Aspects of the working railway

A selection of press reports in 1847 reveal facets of the working railway in the first full year after opening of the line. The occurrences of several accidents to railway employees during their normal duties have been omitted for the sake of brevity.

The Morning Chronicle, 7th January "A gentleman who passed over the railway between Lancaster and Carlisle on Monday morning last, declares it to be the easiest line on which he ever before travelled — being perfectly free from the unpleasant oscillating



motion frequently perceptible on most railways. He states that the four well-filled passenger carriages dashed up the long incline to the summit level at Shap, at a rate of not less than twenty-five miles per hour."

The gentleman also noticed that the engine stationed at the foot of the incline, allocated to assist trains up the steep rise, "was never able to overtake [catch up] the train and instead returned to its base without consequence. Despite the good rate of travel, the train still managed to arrive at Lancaster two hours later than the scheduled time, although no reason was given."

"The first coal sent along the Lancaster

With the gorse out on the embankment just north of Tebay, BR 9F 2-10-0 No.92001 brings a train of vans down from Shap on 17th June 1967 while a Class 5, waiting for a banking engine, prepares to embark on the climb to the summit. (Roy Patterson/Colour-Rail.com 314714)

and Carlisle Railway passed [from Lancaster] on Tuesday, the 29th ult, to Penrith. It consisted of ten waggons of the Earl of Carlisle's coal. Ten waggons in addition from the Blenkinsop Colliery were also ready for the railway but were not conveyed for want of engine power. It was understood the lessee of his lordship's colliery and the Blenkinsop Company had promised E. W. Hasell, Esq., Chairman of the directors of the railway, and Henry Howard, Esq., of Greystoke, to supply the Penrith market each with ten waggons of fine coal, on Tuesday, where at present the coal is 1s 2d per cwt..."

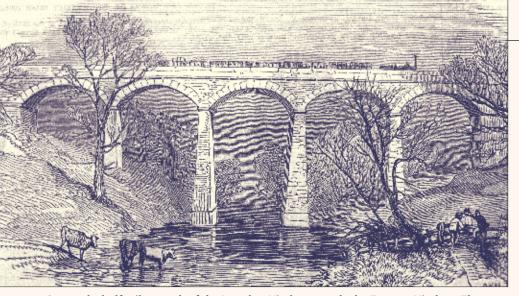
It was also reported that the people of Penrith were beginning to reap the benefits which the railway brought. The price of coal in Penrith had long been 1s [5p] per cwt; the coal now delivered by railway was selling at 8d per cwt, realising a saving of 33% to the consumers.

The Preston Guardian, 9th January "Another fine object has been added to the

Viewed from the North Eastern yard at Tebay, two LMS Fowler Class 4 2-6-4T banking engines are about to pass one another on 29th May 1952. As No.42404 awaits the signal to return to Tebay locomotive shed, No.42424 sets about assisting the morning pick-up goods, with wagons for Harrison's lime works near Thrimby, up the 1 in 75 to Shap Summit. (Eric Bruton/Pendragon Collection)

splendid view from the Castle Terraces at Lancaster by the erection of the viaduct... This lofty structure spans the river [Lune] on three wide arches. The piers are of stone, but the arches, the roadway, and the rest of the viaduct are of iron, put together so as to form a beautiful piece of open work. There is a footpath across the bridge, separated from the carriageway by a strong barrier...Great improvements are in progress in the river, the Railway Company having agreed to spend £10,000 in deepening and cleansing the bed of the Lune."





One and a half miles north of the Lowther Viaduct stands the Eamont Viaduct. There are five arches of 50ft span each, the viaduct towering 70ft above the river. The viaduct has the distinction of standing betwixt Westmorland and Cumberland because the River Eamont forms the boundary at this location. (Illustrated London News)

Opened on 17th December 1846, Penrith station was located less than half a mile to the west of the town centre. Penrith had long been a major route focus and important market town and from the early years when the line was being promoted, one of the committees was set up to encourage the railway to pass through Penrith. Unlike Kendal (which also set up committees) Penrith was successful and the line finally impinged on the western fringe of the town, close to the ruined Penrith Castle. In this view we see the mature station in LMS days c1930, with passengers awaiting a southbound train and a large amount of luggage to be loaded. The main lines approached the station from the south on a large radius curve, which was maintained through the station and continued until straightening north of the town.

(T. J. Edgington Collection)



Lancaster & Carlisle Timetable, 11th March Up Trains: Carlisle to Lancaster

Mail Train: Dep Carlisle 12.45am, Arr Lancaster 4.10am

1st, 2nd, 3rd Class: Dep Carlisle 6.00am, Arr Lancaster 9.30am (called at ten intermediate stations)

1st, 2nd, 3rd Class: Dep Carlisle 11.00am, Arr Lancaster 3.50pm (called at thirteen intermediate stations)

1st, 2nd Class Mail Train: Dep Carlisle 3.28pm, Arr Lancaster 6.53pm (called at eight intermediate stations

Down Trains: Lancaster to Carlisle

1st, 2nd, 3rd Class: Dep Lancaster 6.39pm, Arr Carlisle 10.04pm

1st, 2nd, 3rd Class: Dep Lancaster 10.38am, Arr Carlisle 2.13pm (called at thirteen intermediate stations)

1st, 2nd, 3rd Class: Dep Lancaster 4.40pm, Arr Carlisle 8.10pm (called at thirteen intermediate stations)

1st, 2nd, 3rd Class Mail Train: Dep Lancaster 6.30am, Arr Carlisle 9.55am (called at six intermediate stations)

All trains stopped at Burton & Holme, Milnthorpe, Kendal Junction, Shap and Penrith stations in both directions. On Sundays only the mail trains ran in both directions.

The Preston Guardian, 8th May

"On Tuesday night last [4th May], about half past eleven o'clock, the timber yard of John Stephenson, Esq., contractor, was discovered to be in flames, the fire having been discovered in a saw-pit adjoining...The yard is situated near the Lancaster and Carlisle Railway. The inhabitants were first alarmed by the ringing of the fire bell, a rather unusual occurrence in Lancaster."

The town's fire engine was in a bad state of repair: the moving parts needed lubricating before it could be put to use. This caused a delay in fire-fighting.

"Meanwhile, the fire was rapidly

In the wilds of fell country BR Crosti 9F 2-10-0 No.92025 labours towards Scout Green crossing with the 14.00 Crewe to Carlisle freight on 15th July 1967; at the rear BR Class 4 4-6-0 No.75026 is encouraging it to reach Shap Summit. A desolate spot it may be, but five other photographers are up there; otherwise only sheep! (David Idle)





Carlisle Citadel station, looking north c1900. Both footbridges are visible in this view, as well as the smoke troughs above the tracks. Although shortened at either end, the light ridge-and-furrow glass roof from the 1880/1 rebuilding by the Joint Station Committee remains. (T. J. Edgington Collection)

consuming some valuable timber, which had been prepared for the erection of a goods shed at Milnthorpe station, nearly the whole of which was consumed, as was also a great quantity of workmen's tools."

By the early hours of Wednesday morning the fire was under control. Some timber had been saved by being removed from the yard to a safer place.

The Glasgow Herald, 29th October

News of a head-on collision at Milnthorpe led to erroneous reports of how the accident happened. It was in later press reports that the true magnitude and reasons for the collision were reported.

"A luggage train had to be moved from the down line for a passenger train to pass, and it was too long for the siding. It was moved to the up rails, [and] while it was stationary, an up cattle train arrived at great speed and dashed into the luggage train. It is said that everyone was to blame in this disaster; the engineers of the stationary train were in a public house instead of being on their locomotive; no warning was sent forward to

stop any up train that might approach, though there is a curve at the station; and the driver of the cattle train, contrary to the rules, kept up a great speed on approaching the station."

Two facts beggar belief: that the luggage train was placed on the up-side line while the passenger train passed and that the driver and fireman were drinking in a nearby public house. Had the fast-approaching cattle train been a passenger train, the outcome would have been calamitous. As it was, the driver saved his own neck by jumping clear; the 24-year-old stoker was killed and several cattle were scalded and so badly injured that they were killed. Other cattle were so badly maimed they had to be destroyed. The L&CR was expected to lose £5,000 because this accident.

Epilogue

The Illustrated London News, 19th and 26th December 1846, brought news of the opening of the Lancaster & Carlisle Railway in the form of an abridged account derived from the Carlisle Journal. The ILN was unable to resist the opportunity of appending several

engineering details to its account and these form the last words on the subject in this article. The details began with a tally of bridges and level crossings: "Besides the principal viaducts, the works on the Line comprise 15 turnpike-road bridges, 64 occupation road bridges, 86 occupation bridges, 47 cattle creeps, and 60 level crossings."

The *ILN* continued with a variety of facts that were designed to impress the readership even more: "Total quantity of gunpowder used upon the works - 4,133 barrels of 1,000lbs each, or 184 tons. Coils of fuse, 61,044; length of fuse used, about 416 miles. On the Kendal district alone (five miles) the holes drilled for blasting amounted to 41 miles. Number of nights worked, 152,147 [this figure depended upon the number of nights worked by each working man]. Greatest number of men employed upon the works, 9,615. Greatest number of horses employed, 790. Rock removed, 844,000 cubic yards. Making deductions for the time lost by men [strikes and riots], and the unusually wet country through which the Line passes, the working time in which the Line has been completed is fifteen months?

The formative years of the Lancaster & Carlisle Railway were indeed singularly impressive.

Bibliography

David Joy: *Main Line Over Shap*, Dalesman Publication, 1968.

Carlisle was an enthusiasts' delight, never more so than when no fewer than three LMS 'Coronation' Pacifics were lined up. On 16th June 1956 No.46224 Princess Alexandra (left) had brought in the 10.10am Glasgow–Euston which No.46250 City of Lichfield (on the middle road) would take onwards. No.46243 City of Lancaster (on the right) was working the 10.05 Glasgow–Birmingham. (T. J. Edgington)





Napsbury station looking north on 27th June 1959. (H. C. Casserley)

apsbury station was unique for a variety of reasons. Unlike the other stations which had opened on the London Extension from Bedford to St. Pancras in 1868, Napsbury didn't open until 1905. Its main function was to provide access for visitors to the adjacent asylum. Napsbury Asylum had been built by the Middlesex County Council on the site of Napsbury Manor farm. Building commenced in 1901 with the formal opening in 1905. It could accommodate over 1,200 patients and together with the staff and visitors, the Midland Railway obviously thought it warranted a station.

Earlier, in May 1858, the London & North Western Railway had opened a branch from Watford to St. Albans. The arrival of the

MR Class 3 0-6-0 No.43808 with a short goods train, perhaps being worked into or out of the asylum siding, on 27th June 1959. (H. C. Casserley)

NAPSBURY

Midland found the tracks not more than a mile apart and the Midland had obtained powers in 1864 to build a connecting link between the two. The junction on the Midland was at Napsbury with the connection with the LNWR being just south of that company's station at Park Street and Frogmore. Its sole purpose was to provide a means of carrying construction traffic for the Midland's new line to London. It was never intended to provide a passenger service. The link was completed in 1868 and closed some 23 years later in 1891. For many years a short length of the track at the Midland end was retained and used for storage of stock. On the up side of the track at the station, a siding led into the asylum complex. From the early days of the asylum it was the intention for the hospital to be selfsufficient, as much as was possible. To this end, part of the grounds contained a small farm and a market garden. The siding was a

means of bringing in coal and other goods and for taking out surplus produce. At one time, I believe, these wagon loads were worked by a horse. H. C. Casserley's photograph of a single wagon load may well have come from or be about to be worked into the asylum's siding.

PETER BUTLER notes

a lost station on the Midland Main Line.

The station at Napsbury was of an unusual design, being of a wooden construction with two sets of strange-looking chimneys. It consisted of an island platform on the slow lines with a connecting footbridge over to the grounds of the asylum. As a result of this the up slow line had to be slewed out round the platform, a situation which remained *in situ* until the 'dog leg' was removed in 1981, by which time all evidence of the station had disappeared, having closed in September 1959.

At the time of the station opening the signal box, which was situated at the country end of the station, was renamed Napsbury, having been Park St. Junction. In May 1978 I was able



to visit the box in order to photograph it before it disappeared with the electrification of the Midland Main Line between St. Pancras and Bedford. With it still being in close proximity to the asylum I had heard various stories about the special equipment that was kept at the box in order to deal with escaping inmates! As is so often the case, most of these tales proved to be the result of someone's vivid imagination. The only thing that was not the norm was the provision of a GPO telephone. Of course things might have been different in earlier days. The box was slightly different in that it still carried its name boards, in the old Midland fashion, at the front (and at Napsbury at the back) rather than the usual practice of mounting them

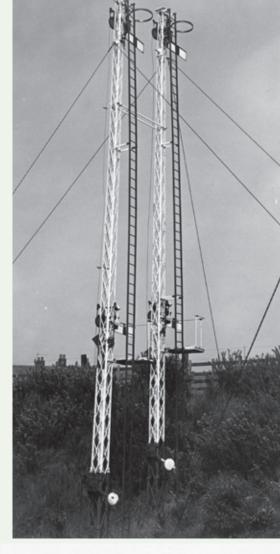
The up slow line junction signals with repeating arms on 10th May 1978. (Author)

over the ends of the box. Napsbury had three wonderful sets of lattice girdered co-acting signals. These were on the up fast and slow lines. Some ¼-mile to the north of the box an overbridge obscured the view for drivers, hence the provision of the taller signals so that they could be seen over the top of the bridge.

The box and the signals survived until December 1979. I was glad I had been able to visit the box and the area; my only regret was I had not been able to see the station. Still, I suppose one should be thankful for small mercies!

Looking south through the station on 27th June 1959, with the MR signal box still having its name board on the front. (H. C. Casserley)

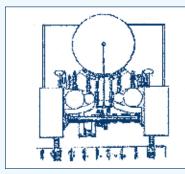


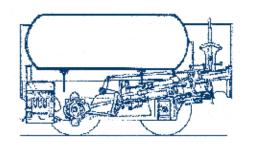


BR Class 4 4-6-0 No.75055 with the last train to call at Napsbury, the 4.34pm to St. Pancras on Sunday 13th September 1959. (The late Peter Bland/courtesy of Bryan Cross)



IT SEEMED LIKE A GOOD IDEA AT THE





Basic principle of Beaumont's compressed air locomotive. (Patent specification)

he first trials of a pure compressed air locomotive in the UK were carried out by Mr. Arthur Parsley on the Eastern Counties Railway. The initial design originated from his patent of 1846, coinciding with the short-lived boom in 'atmospheric' propulsion, and was followed by an 'improved' version in 1851, but it was not powerful enough to be of any practical use.¹

By the 1870s steam locomotives had made enormous strides, but there was a range of locations that needed mechanical transport systems for which they were inappropriate or undesirable, such as tunnelling operations and, particularly, factories making explosives. For these, a number of engineers turned their attention to the use of compressed air as the medium in a reciprocating engine, even though this would involve less potential energy -'enthalpy' – than steam at any given pressure. In addition, the overall thermodynamics of a compressed air system involve a few unique complications and cost implications, of which the first is that the generation of compressed air produces waste heat from the compressors themselves, machines that were expensive to buy in the first place. The second is the rapid cooling which takes place during the expansion cycle, causing any moisture in the air to turn to ice with subsequent blockage of valves etc. (Which is why domestic refrigerators generate external heat and have to use special fluids, like fluorocarbons, in the internal, closed-cycle cooling pipes.)

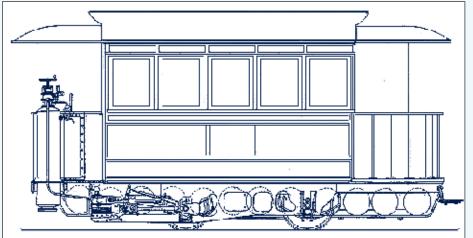
Frederick Beaumont was an enterprising and inventive officer in the Royal Engineers,² appointed in 1873 to run the extensive internal

railway network at Woolwich Arsenal, part of which was standard gauge, part 18in narrow gauge and with some mixed gauge. By this time he held the rank of Major and he soon decided that the need for a 'safe' locomotive had to be tackled. Woolwich had become the manufacturing centre for Whitehead torpedoes after Britain bought the manufacturing rights in 1871, with Beaumont being very much involved in their development. These used bottled compressed air as the compact power source, originally driving a simple-expansion, two-cylinder 'Vee' configuration motor, and by 1875 this had been upgraded to threecylinder motors from Peter Brotherhood Ltd. of Peterborough.3 It was logical, therefore, that his three prototype locomotives should use this medium and motors based on torpedo experience though, with more space available in a locomotive, Beaumont quickly moved from simple to compound expansion motors. Precise details of the construction of these locomotives are obfuscated by conflicting reports and confusion with quite another man called Beaumont who might have been involved with the London & Croydon atmospheric line in the

I believe the likeliest sequence of events goes something like this. Beaumont's first locomotive was probably a four-cylinder 0-4-0 built by Greenwood & Batley with the compressed air bottle charged at 1,000psi, making use of the Whitehead four-stage compressor plant at Woolwich to achieve this. It may well have resembled the design in his patent.

Nor is it clear what the gauge was, but it

Original Mékarski compressed air tramcar design, showing the regulator on top of the coke-fired *bouillotte* heat-exchanger at left-hand end. (Patent specification)



COMPRESSED AIR 19th/EARLY 20th

BY MILES MACNAIR

seems to have undergone trials at Woolwich between 1876 and 1877, the year he retired from the army as a colonel. From 1868 he had also been a Member of Parliament and had formed the Beaumont Compressed Air Co. which supplied some pneumatic tunnelling machinery to the original Channel Tunnel Co. for use in its exploratory 2,000-yard tunnel at Shakespeare Cliff, Folkestone, in 1880. That same year two further locomotives to his designs, both standard gauge and based on an outside frame 0-4-0 chassis supplied by Manning, Wardle (Works Nos.761 and 762), were trialled. The Times of 27th May 1880 reported on the first which took place within Woolwich Arsenal on a 700vd stretch of mixed gauge, the Beaumont No.1 locomotive "which weighed 10 tons...and resembled a large tank on wheels" towing a narrow-gauge trolley on which sat a number of interested assessors. The engine is described as a threecylinder compound, with a "diminutive steam generator" for heating the air before admission to the third cylinder. Other sources say it had six-cylinders so the engine units were probably duplicated. These, together with the welded air-storage bottles, were constructed by Daniel Adamson & Co. and used a unique drop-valve gear on the high-pressure cylinders, allowing air at full pressure to be admitted to both the first two for starting.5

The only known illustration shows an ungainly machine with all the appearance of an experimental lash-up, one which he probably hoped to develop into a full-scale locomotive for use in the Channel Tunnel - if and when this came to anything. In his paper to the Society of Arts, published in its Journal of March 1881, Col. Beaumont stated that his 'Experimental Engine' ran for three or four months on the Woolwich Arsenal system and then "made a trip of some 16 miles on the South Eastern Railway from Dartford to Woolwich and back...it was then run on the Metropolitan (Underground) Railway". The Times article referred to above had anticipated this move, which the journalist said might prove to be "a great boon both to railway passengers and to the company's staff".

ther areas where a quiet, smoke and soot-free environment would be particularly appreciated were the tramway systems in rapidly expanding towns and cities, systems which had hitherto relied on the horse for motive power.6 Maintenance of horses was manpower intensive and required considerable stabling space, quite apart from the intractable problem of the animals' effluent discharge. Beaumont's locomotive No.2 was thus aimed at this market and was a much more refined, elegant-looking tram engine, this time with a pair of two-cylinder compound engines fed from a pair of reservoir bottles both of 110cu ft. The locomotive arrived for its first trial on the North Metropolitan

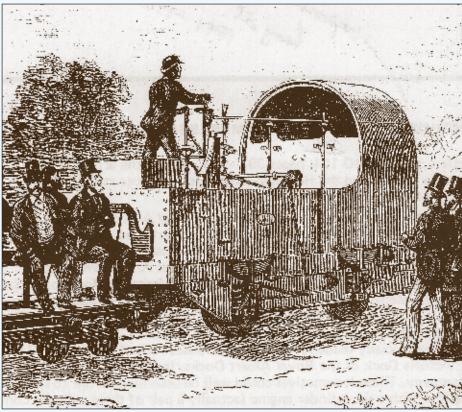
TIME – PART THREE

Beaumont's experimental locomotive built of a chassis supplied by Manning, Wardle & Co. (No.761) and tested on the dual gauge track at Woolwich Arsenal 1880/1. (Society of Arts Journal, 18th March 1881)

LOCOMOTIVES: CENTURY

Tramway network on 17th August 1881 but at 11 tons 6cwt was deemed to be too heavy and was replaced by Beaumont with a modified machine - smaller, 65cu ft reservoir bottles which weighed in at 8 tons 10cwt. It towed a double-deck tramcar over the 2½ miles from Stratford to Leytonstone which included a gradient of 1 in 25, but the NMT was not impressed and turned to experimenting with tramcars powered by electric batteries. Col. Beaumont was initially much involved with the digging of the first Mersey Tunnel for the eponymous railway company which started in 1879 (completed in 1885) but he fell out with the company that bore his name in 1882 over its financial practices and its shortage of technical skill.7 His No.2 tram locomotive, plus its NMT tramcar, then turned up in Liverpool in 1884 on the Bootle Corporation system and might have run there until 1886 when the trial was terminated because "the cost of running the air-tram had exceeded expectations".

Outstandingly the most successful of all the compressed air locomotive engineers of this era was Louis Mékarski. In 1876 he demonstrated the first of his tramcars on a section of the Paris tramway system. Multiple compressed air bottles were mounted within the chassis and the air was preheated in a bouillotte on the driver's platform before passing into a conventional simple-expansion, two-cylinder engine via a regulator valve. This bouillotte was a small, coke-fired boiler/heat exchanger - an extra little job for the driver. However, rather than passing the air through a copper coil within, the air was bubbled through the modestly pressurised hot water, allowing it to pick up a certain amount of warm water



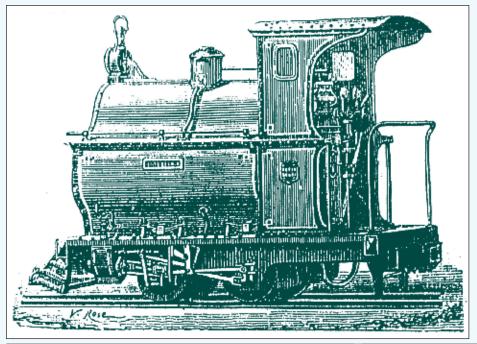
vapour at a temperature of between 160–180°C. Release of the latent heat contained in this water vapour was found to be beneficial to increasing the range and the condensate was also claimed to improve cylinder lubrication. The air bottles were designed to be recharged at 450psi from 'staging-points' off a ring main from a centralised compressor plant. (I understand that the coke-fired *bouillettes* were replaced in later models by units that were fed from a separate ring main of pressurised hot water.) Paris became the world's largest user,

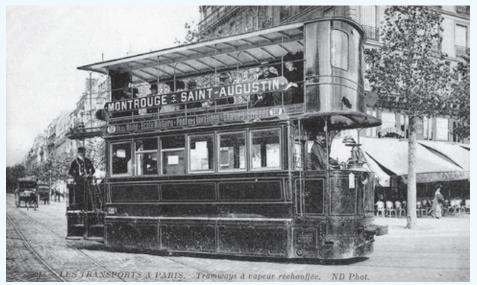
with several hundred Mékarski tramcars used on numerous routes over the next 30-odd years. The second largest network in France was at Nantes which originally opened in 1879 and built up a fleet of 62 tramcars, 32 additional cars being added between 1898 and 1900.8 These were more powerful (charged at 900psi) while the engines were double-expansion compounds with both axles driven and here they lasted until 1917 when the network went over to electric traction.

In the UK a number of organisations and councils, apart from those mentioned above, carried out brief trials with various designs of compressed air tramcars in the 1870s and '80s, including the Vale of Clyde (between Govan and Paisley) and Chester, but none was successful. Sir Frederick Bramwell had visited Nantes and been impressed by the Mékarski system; he bought the licence to establish the British Mékarski Improved Air Engine Co. and had a pair of small tramway locomotives built by the Compressed Air Engine Co. of London. These were tested for three months on the Wantage Tramway in the autumn of 1890 hauling existing horse-tramcars, but were rejected by the line's engineer because the very expensive compressor plant used nearly five times as much coal as steam tramcars or locomotives. (The trial was not helped by the fact that the two cars managed to have a head-on collision on one occasion.)

Several cities in the USA flirted with compressed air tramcars including a Mékarski model trialled in New York and Toledo around 1885, but there was a general mistrust of 'high pressure' compressed air systems and most local inventors concentrated on lower pressure designs. Because these needed recharging more frequently, much ingenuity was expended/wasted on trying to come up with complicated systems whereby this

The only Mékarski-based locomotive, built in 1887 for Paul Decauville by S. A. Couillet (Works No.38). Gauge 600mm, weight 3 tonnes. Named *Fille de l'Air*, it was exhibited in Paris and Amsterdam in 1882 and at Turin in 1884. (Courtesy of the Stephenson Locomotive Society)





Mekarski tramcar and trailer, Paris 1910. After withdrawal, several were rebuilt as 'conventional' steam trams on the Purrey system, retaining the original chassis and body. (ND Phot postcard, courtesy John Prentice)

was achieved 'automatically' at intervals by connecting to supply pipes laid between or beside the tracks. None was successful. One US engineer, Robert Hardie, did, however, come up with a promising innovation, namely 'regenerative braking', using the propulsion cylinders in compression mode to partially recharge the air supply bottles. Five of his small 2-4-0 locomotives, built by the Pneumatic Tramway Engine Company, were trialled for a time on the New York Elevated Railway.

ther locations where pollution from steam locomotives was unacceptable included mining operations, particularly coalmines where the dangers from 'firedamp' explosions were a constant hazard. For such situations, various companies looked at the possible use of compressed air as the medium in a reciprocating engine. The first successful mining application in America was in 1883, when Baldwin converted a steam locomotive to operate by compressed air stored at 400psi in bottles 27ft long and 38in in diameter. 10 The Hughes-Knight partnership introduced a significant improvement by incorporating double-expansion compounding, which enabled the high pressure exhaust air to be reheated, by a hot-water jacket, before entering the low-pressure cylinder. Charles Hodge then took this principle one stage further into triple expansion, with the first two stages occurring in a single, compact, double-acting cylinder. His most ingenious improvement came from warming the exhaust air from this cylinder by passing it through a heat exchanger which sucked ambient temperature air through it by an ejector 'powered' by the low-pressure cylinder exhaust. Without introducing any extra moving parts, it also had the practical side effect of circulating the air around it and thus providing welcome ventilation. The Porter company bought the Hodge patents and sold hundreds of its compact, efficient locomotives to coalmines between 1896 and the 1930s.

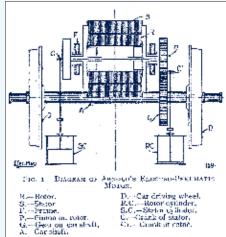
Given the many 'environmental' benefits of compressed air traction and the relative simplicity of the mechanical components involved, one might ask why it did not achieve more widespread adoption in the era, of about

40 years, before electric traction became practical. The thermo-dynamic efficiency of the complete compression/exhaust cycle was theoretically limited to about 30%, but this was enormous compared with that of steam locomotives of the period. The answer lies in the economics, since there was a need (just like the 'atmospheric' system) for initial, very expensive capital investment in a centralised compressor plant plus, if the system was of any length, a means of piped distribution to recharging docks. It was therefore only on relatively large systems where this capital cost could be amortised over many operating units that the financial equation made sense, which required both a persuasive promoter and a receptive purchasing board of directors prepared to take a relatively long-term view. Hence the success of Mékarski and certain French city fathers and the failure of smallscale, local trials elsewhere. By comparison, once the massive capital expenditure had been invested in the track system for steam-hauled lines, the incremental cost of adding additional locomotives was relatively small.

In 1901 the French Ouest Railway ordered four compressed air locomotives from La Société St. Leonard de Liége in conjunction

Simplified diagram of the working principals behind Arnold's motor-bogie. (Electrician magazine – courtesy Douglas

elf)



with a new underground railway terminus at Les Invalides. The Paris authorities banned the use of steam locomotives on this line and the medium/long-term plan was to use electric traction based on a 650V third rail system. The compressed air locomotives were mounted on two four-wheel bogies driven by two sets of double-expansion cylinders taking compressed air from 33 storage bottles charged from a nearby compressor plant. This took alreadycompressed air at 85psi from the Companie Parisienne distribution system and then raised it to the storage pressure for the locomotives which Douglas Self quotes as 1,422psi.11 The working pressure in the high-pressure drive cylinders was regulated at 280psi, that in the low pressure cylinders 140psi. There were driving positions at both ends, both apparently containing some sort of bouillette as well - details unknown. Another enigma is how these machines were planned to be used. Commentators seem to have concluded that they were never intended as primary motive power for scheduled trains, but as emergency back-up or rescue vehicles in the event of the electricity system failing for whatever reason. They were withdrawn in 1910.

An interesting electro-pneumatic hybrid railcar was built in the USA in 1903-4. It was the invention of Bion J. Arnold, President of the American Institute of Electrical Engineers, and in each bogie there was a pair of compact but very complex drive packages, each of which combined a synchronous (eg constant speed) ac motor with two pneumatic cylinders. One of these was attached by a crank to the stator and the other to the rotor which, via a couple of gears, rotated in opposite directions to one another. Speed and braking were to be controlled by either introducing compressed air from storage bottles under the chassis into the cylinders, or using them as compressors for recharging. Sadly we will never know if this was a daft idea or a stroke of genius, because the night before full-scale trials began it burst into flames.

To be continued.

References

- 1. Nicholls, A. *Backtrack*, July 2001 and Gray, A. *Backtrack*, November 2014.
- 2. Following his experiences in the Crimean War, 1857, Lt. Beaumont devised a significant improvement to the Adams self-cocking revolver, allowing it to be used for single shots as well as repeat firing. It was adopted as the standard handgun by the British army, putting Colt's London factory out of business.
- 3. Journal of the Royal Navy Scientific Service, January 1972.
- 4. Industrial Railway Record 95.
- Clayton, D. Industrial Railway Record 110, pp165–7.
- For an excellent historical worldwide survey, see the John Prentice website Compressed Air Trams.
- 7. Weaver, R. *Industrial Railway Record* 117, pp421–2. The company continued to seek customers for tram locomotives, but its submission to Antwerp in 1885 was judged to be the worst of all the contenders.
- There were four other French networks in Vichy, Aix-les-Bains, La Rochelle and St. Quentain and another in Switzerland, at Bern.
- 9. Before moving to the USA, he had been associated with William Scott-Moncrieff's experimental compressed air tramcar on the Vale of Clyde line. 1875–7.
- 10. Engineering, 13th April 1883.
- 11. Ditto.

Readers'Forum

The ACV lightweight diesel trains

The two photographs in the November issue acknowledged as 'Author's Collection' should have been credited 'Basil Hancock Collection'

Eric Stuart

I read Eric Stuart's article on the ACV diesel trains in November's *Backtrack* with interest. Mr. Stuart suggests that the railcar was used on the Allhallows and Westerham branches in 1953; reference to the Middleton Press book *Branch Line to Allhallows* by Vic Mitchell and Keith Smith confirms that it was used on the line between 13th October and 16th November 1953 and includes photographs at Gravesend Central and Cliffe. The late S. C. Nash's book *Southern Region Steam Album* also includes a photograph of the railcar at Gravesend with the comment that the Southern "was not impressed... and soon got rid of it"

I have not been able to find any evidence that the railcar ever worked the Westerham branch: the Middleton Press book Southern Main Lines - Orpington to Tonbridge (which also covers the branch) does not mention it, nor does David Gould's very detailed history of the line Westerham Valley Railway, reprinted by the Oakwood Press in 1999, mention it. This is not to say that it never appeared; the push-pull sets (which used the bodies of the ex-SECR steam railmotors and had the unusual feature of inwardopening doors) used on both branches at that time were 'common user', so in theory the railcar could have appeared. I too would be interested in confirmation (or otherwise) that the railcar appeared on the Westerham line as I spent some of my formative years in that area.

Richard Allen, Letchworth

The Bristol & South Wales Union Railway

In his fascinating article (September) Jeffrey Wells quotes a newspaper report dated 11th September 1863: "The carriages placed on the line are those recently released from the Metropolitan Railway." That line had opened on 10th January of the same year operated by Great Western locomotives and rolling stock, as the Metropolitan had none of its own at that time. The relationship between the two companies soon began to sour, the principal bones of contention being the service interval and the Metropolitan's link with the Great Northern at King's Cross. The GWR threatened to withdraw its stock from 30th September and, when the Metropolitan refused to cave in, advanced the date to 10th August. These moves on the part of the GWR have previously been put down to petulance and perhaps a modicum of bluff but in the light of Jeffrey Wells's article it would seem that shortage of rolling stock was also a factor. The Metropolitan had entered into an agreement with the GN to provide locomotives and rolling stock (with a few carriages on loan from the LNWR) from 11th August and the Great Western rolling stock had by the following month found its way on to the Bristol & South Wales Union.

Michael J. Smith. Allestree. Derby

In the days of Daniel Gooch

I have just purchased the October issue and was pleased to see that an article entitled by your regular contributor L. A.Summers. On p606 of the magazine he makes the commonly made mistake of attributing the invention of the 'Gooch' Valve Gear to

Daniel when in fact it was the intellectual property of his brother John Viret Gooch who first applied it to a LSWR 2-2-2 Snake in 1843. Daniel Gooch actually confirmed this during the course of a legal hearing during October 1851 where he was summoned as an expert witness by the LNWR when John Gray attempted to defend his right to royalties of £20 per engine under his patent on the principle of expansive working in a steam engine.

Simon Bowditch, by email

It is always a pleasure to read an article as interesting and erudite as that of L. A. Summers on the development of Gooch's broad gauge locomotive designs in the earlier years of the GWR.

However, although he is in good company in his assertion that the Whyte system of wheel notation should give some indication of the tracking and suspension characteristics of unpowered axles (I gather official correspondence from Doncaster Plant referred to Gresley's WI as a 4-6-2-2), if we describe Gooch's Lord of the Isles as a 2-2-2-2, I can't help wondering how we classify the wheel arrangement of the Webb LNWR 'Greater Britain' compounds, which really were 2-2-2-2s however the Whyte system of notation is interpreted.

David Burton, Wellington, Shropshire

The Brightlingsea branch closure

The article on the decline of the Brightlingsea branch by E. A. Gibbins is filled with melancholic anger at the stupidity of those who objected to the closure. I suspect, though this is not made clear, that the author has had much experience of such arguments and is himself an accountant or similar, focussing on the financial and legal realities rather than political and woolly wishful thinking. He demolishes with sardonic briiliance each of the arguments put forward by business and political and civic bodies at the time. And yet... without in any way wishing to challenge the facts and figures of his well-researched and well-written essay, I cannot help seeing an element of justice on both sides of the argument. Of course, hindsight is always a useful tool not available to those charged in 1953 with making decisions based on the facts they had.

Firstly, the photographs reveal a line on which investment had not been exactly generous for decades - the J15 and the coaches look pretty well fully-depreciated by 1956. Earlier application of some of Gerry Fiennes's creative thinking would have seen savings in signalling, track layout (starting with a single lead rather than a double track lead with crossing at Wivenhoe), abolition of water crane and so forth. Reference is made to the futility of basing two crews at Brightlingsea for the last and first trains I have been unable to find a trackplan on the internet - was there really a separate engine shed with all facilities at the terminus? (Reference is made to reopening it.) How much would have been saved in infrastructure alone, not to mention C&W staff, by running the first and last trains (not necessarily as empty stock) from and back to Colchester? What other economies could have been sought? What was the staffing at the terminus? It is true that there is no such thing as a "part time loco crew" but there $\it are$ crews who can spend half a shift shunting at one place and then half a shift working a turn on a branch line.

Secondly, just because an Act of Parliament says something does not make this necessarily eternally correct. The local Letters intended for publication should ideally add extra detail to our articles (or offer corrections of course!) and not be too long, consistent with the detail they offer. As always, we are sorry that space and time prevent us from printing them all or sending personal replies. ED.

objectors would have a moral point, at least, if they could say that the railway to their town had been nationalised only a few years previously precisely because, in the post-war conditions, it could not make a profit for a private company - and yet now, owned by the taxpayers, it was being expected to make a profit! In the German Democratic Republic, of course, branch lines were also closed even though owned by 'the People' so I realise this argument is not a clincher, but it is an argument and in Germany now some smaller lines have indeed been sold to local authorities and organisations for them to run as economically as possible. Later Acts of Parliament have privatised the system once again... We know how uncomfortable buses can be even now; in 1953 with poor roads they would also not have been seen as a luxurious alternative to the lowliest of elderly bogie carriages. The comment that DMUs were needed more urgently on more important lines earlier is ironic in view of the efforts to develop cheap railcars for unimportant lines described by Mr. Hennessey! Of course local MPs would have a duty to represent their constituents who were being faced with the

Thirdly, the flood damage issue is a bit of a 'spoiler' - either there was insurance or else there was at least a duty on the railway to repair and maintain embankments. Why was there no sea damage relief fromt he Government? This is a political issue. In my life I have only once seen evidence - it was in Holland, near Zaltbommel - of a dual carriageway road that was 'singled' after a parallel motorway was built nearby - literally the asphalt surface of one carriageway lifted and half the embankment dug away! – but in no other case am I aware of a road ever being closed due to lack of use or cost of maintenance. The article mentions how BR was paying for maintaining sea embankments even though it had no statutory duty to do so; so one could either give it this statutory duty, and the resources necessary, or this duty would have to be handled by someone else but still at taxpayer expense.

withdrawal of a state-owned facility.

Fourthly, I have also learned to be very suspicious of official figures for all sorts of things. I have never understood why the cost of a two-platform concrete halt with a bus shelter along an existing line has to be measured in the hundreds of thousands, if not millions, or how maintenance costs are calculated, or depreciation, or 'writing-off', or how large sums can be off-loaded on to a subsidiary or a branch line or cross-subsidised... Figures can be made to mean whatever they need to mean. Right now the refusal to tax air fuel or charge long-distance buses road use fees in Germany is making rail in Europe uneconomic...

So - the line trundled on for a further ten years. It was dieselised in March 1957. What effect did the electrification from Colchester to Clacton in 1959 have, was the timetable improved or adapted? Was there a 'sparks effect' in terms of commuter traffic? I don't know. Through electric trains to London commenced only in 1963, the year the next closure discussion was begun. We know that some branch lines (eg Witham to Braintree) survived just long enough to experience an upsurge of commuter traffic and to be modernised, whereas others were destroyed only a short time earlier.

In short, one can look on any situation as "glass half empty/glass half full". Some look at a railway map and see branches, others look and see roots. Lop off some of the branches and a tree may survive, lop off the roots and it will not. While checking on the internet for some details I see there is

now a campaign to have the line rebuilt and reopened! Presumably at enormous expense. Times change.

Rabbi Dr. Walter Rothschild., Berlin

Carrying the Goods

I'm pretty sure that the photograph of the "Midland Railway fast goods train" on p685 is not "near Mill Hill" but a few miles to the north on the down slow line having just left Elstree New Tunnel. The beginnings of Elstree station's goods yard can be seen behind the locomotive. The bridge in the background, which I suspect carried a water pipe, was very distinctive.

The area is etched on my memory as I travelled to school between Mill Hill and Elstree every day for seven years in the late 1960s. Although the service was dieselised much else was virtually unchangd since Midland Railway days.

Andrew Kleissner (Rev.), Ipswich

The formative years of the Lancaster & Carlisle Railway

The photograph on p646 (November) passes comment on the Southern Region green carriage unusually fronting the formation. The date given, mid-1967, was within a period of time that a good many passenger-carrying coaches were being transferred between Regions. This included several BR MkI BSKs (of which type this particular coach is) of the SR finding new ownership on the LMR and I rather imagine this is one of them. Not only was BR-built stock being moved around but larger numbers of company stock were also involved. Many of these movements were either never recorded by the Rolling Stock Library as not a few found themselves transferred again, on occasion back to their original Regional ownership, or withdrawal and condemnation claimed them.

In this context, it is also interesting to note the remainder of the train formation is three LMS-type coaches, somewhat unusual in a timetabled service by the date shown, that in all probability would only have around a year or eighteen months left in revenue-earning service.

John Macnab, Falkirk

Autocars and Doodlebugs

The excellent article by Mr. Hennessey on early railcar projects is an example of how important your magazine is — such well-researched and presented articles would not find a place in other, more 'popular' publications! Well done. I was intrigued by his footnote 5 regarding the origin of the word 'coach' as I thought it was linked to the German 'Kutsche' for a horse-drawn carriage — but now I discover that 'Kutsche' is itself derived from 'Kosci szeker' — 'a wagon from Koss'!! What an amazing sippet! I suppose 'car' and 'carriage' are derived from 'chariot' or imply something in which people are carried.

Rabbi Dr. Walter Rothschild, Berlin

Long-Distance Commuter Travel

I must comment on one random aspect of Mr. Nisbet's interesting article, where he states that in 2015, the off-peak frequency of trains from Basingstoke to Waterloo is twice hourly. There are, in fact, seven trains per hour, two of which are the services stopping at all stations to Woking. Furthermore, none combine with Alton trains at Woking, which practice stopped about twenty years ago.

As a long-time user of Wichfield, may I crave the editor's indulgence to reminisce

about a couple of unusual situations. One train on which I commuted was a good example of Southern flexibility. It comprised a Class 33/4TC set from Salisbury, which arrived at Basingstoke and on to which was coupled a pair of 4-VEPs, which had started at Eastleigh.

But if the Salisbury train was late, the 4-VEPs were in the lead, with the Class 33 forming the ninth vehicle. In those days Winchfield had a number of very senior persons from the City and Civil Service, who would group at the appropriate position for their first class seats. However, some of them became totally confused when confonted by a oily, throbbing 'coach' with no doors or windows! Of course, someone like myself would have looked down the track towards Hook to see what front end was in view and if a 4-VEP corridor end, would positioned himself to get into the door by the four-seat area rather than the 2+3.

The other occasion was when Clapham Junction caught fire in the early 1980s. My train home was the nearest to the station when all trains were halted. After a long wait (and the guard kept us informed), we returned wrong line to Waterloo, following all the other trains that had formed up behind us, and were eventually interjected into the Windsor line services. Of course, at Waterloo the already full train had to take on a multitude of other delayed passengers - train full was an understatement. We arrived back at Winchfield six hours late, but Southern Region had done a magnificent job.

It was interesting that other commuters with whom one would travelevery day, but ignore. became close friends afterwards

However, the plus side was that for the next few days my train was headed by a Class 50, which then travelled via East Putney, and the sound of the locomotive climbing from Wandsworth Town up the bank to East Putney was superb.

David Cable, Hartley Wintney, Hants.

The LBSCR directors'

It was pleasing to see the erstwhile LBSCR directors' saloon No.60 featured in the October issue and the more recent history of this unique and attractive vehicle in Bluebell Railway ownership merits some further comment. I write with personal knowledge as a Bluebell guard with 50 years of service, which commenced, coincidentally, just a few weeks before I saw the saloon delivered by road to Sheffield Park in 1965.

The saloon went into traffic almost immediately, afternoon teas being served in it for several years as the article mentions. It usually ran as part of a longer train, with the gangways connected to allow access from at least one adjacent vehicle, such as the Maunsell brake No.6575 shown in the photograph. As the saloon did not have end doors or gangways when built, the gangways were later removed with the intention that the ends will be also be restored to their original 'solid' condition in due course, although this task (and others, such as reinstatement of the original side windows) will be daunting both physically and financially.

As would be expected with a vehicle regularly used by the railway's directors and officers for inspection purposes, the saloon could be used alone and propelled if necessary. It therefore had a handbrake (externally operated by means of the wheel clearly visible below the solebar) and the vacuum brake could be applied by means of a valve located inside the vestibule at either end. However, neither feature was particularly conducive to slick operation (as I well recall), particularly when the saloon constituted the entire train, as was quite common on winter 'tea' workings in the first couple of seasons. Descending to track level to apply the handbrake when the locomotive was detached was an infernal nuisance (and impossible at Horsted Keynes if standing with a platform on both sides!) and we usually didn't bother, relying on the vacuum to hold the saloon for the short runround time. And the brake valves, although adequate for testing the brake, were quite unable to destroy the vacuum sufficiently quickly to effect an emergency stop. The latter defect became very evident to me one day whilst riding in the saloon as the leading vehicle during a propelling movement and a passenger walked in front of the train. My full brake application, although noticed by the driver, was overcome by his unwise use of the ejector and we failed to stop fortunately without any resultant tragedy.

Rather fittingly, the saloon was the usual venue for the Bluebell's monthly management committee meetings in the early 1970s. It was in that historic environment that the first steps were taken to consider and subsequently implement the 'Northern Extension' project that, 40 years later, took Bluebell on to East Grinstead. Alas, the saloon has not vet been there.

Nick Stanbury, Tunbridge Wells

Summertime and the living is easy

I was very interested in the photograph on the back page of the November Backtrack. I grew up in the village of Ashurst. My father was a leading railwayman at Withyham and we lived just along the road from the station.

I believe the train in the photograph arrived at Ashurst at around 6.00pm. This train was divided at Ashurst. When they were short-staffed, my father was summoned to do the dividing. On one such occasion, he took myself and my brother with him. I can still see him now, between the carriages disconnecting the pipes and hoses. It was winter because the station was lit with oil lamps and my father had a lamp too (there was no gas supply in Ashurst). The front half continued on to Brighton and the engine in the siding took the rear half off to Tunbridge Wells West. My brother was lucky enough to go on the footplate of one of the engines. It is such a vivid memory.

Audrey Wheeler, Crowborough

BookReviews

| ★★★★ Excellent | ★★★★ Very Good | ★★★ Good | ★★ Fair | ★ Poor |

History of the North London Railway

Volume 1, London's North **Western Electrics**

by F. G. B. Atkinson, B. W. Adams and H. L. Clarke, 152pp, large format softback, many illustrations. ISBN 978 0 9932219 0 3. Published by the North London Railway Society; 7 Bristol Rd, Colchester, Essex, CO1 2YU. £22.50, plus £5 p&p.

Back in 1962 the Electric Railway Society published a 'Jubilee History' of London's North Western Electric, a concise and authoritative monograph, albeit supplied with rather small grey-on-grey illustrations. During the years in which it became a collector's piece a great silence descended on the history of the extensive LNWR-NLRlater LMS London electrics, although various initiatives tried, unsuccessfully, to fill the gap. Now at last this remarkable system has another history worthy of its significance and

Thanks to the efforts of the late Dr. Hedley Clarke, the text of the original ERS work has been respected, considerably augmented and fully updated, bringing the story into our era in which the 'Overground' of Transport for London has taken up the

This abundantly illustrated text recounts an unusual tale of long-term survival, a rich variety of electrical motive power and no end of unusual details: the unique control systems of the Oerlikon stock (as described by the leading expert in this field, B. J. Prigmore), the unusual mixture of full-size main line stock and early Tube trains that shared the Watford services, the peculiar, long-lived conductor rails rolled out by Cargo Fleet, Middlesbrough and so on.

The main title of the book is slightly askew, although corrected by the sub-title since this is a full-blown history of the entire LNWR London electrical network, including its latter-day extension towards the East London line, not electrified in the days of the 'Premier Line' but doing busy work in our times, served by the comfortable 378s. This rolling stock is a worthy successor to the LNWR's Siemens and Oerlikon trains, described fully here, which set high standards of passenger comfort a century ago. Between then and now the picture was not so rosy; the inter-war GEC stock and the BR Class 501 cheapskates were not much to write home about - hard riders with clanging slam doors and barred windows.

About half of the many rolling stock illustrations cover the LNWR-LMS stock in various guises. Other photographs make clear, for example, the massive civil engineering work involved when the LNWR constructed its 'New Lines' for suburban traffic out to Watford. Some of the photographs are highly evocative: war-damaged and bleak Caledonian Road station on a wet November day, 1966, the very antithesis of a palmfringed beach. Although most illustrations are of excellent quality, a few are on the rough side, apparently included because of their historical rarity, such as a District Line train operating the LNWR's West London service in the very early days.

Hedley Clarke and the original authors have made a thorough job of chronicling the ways, works, operations and technology of this unusual system, part inner-urban, part outer, even marginally rural at its extremes, like the defunct Rickmansworth branch. Strange to contemplate that part of this this massive suburb-creator, the classic NLR section, nearly got the chop in the Beeching epoch. In addition to the numerous illustrations there is a generous and informative map, appendices and recent references. Although the work lacks an index, its logical structure guides the reader helpfully. Unusually good value for its price, it gives us at long last an authoritative and cogent history of this curiously underrecorded network.

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London Transport was still using steam for things like permanent way trains with ex-GWR pannier tanks doing the job. Whilst we would have to wait until October 1971 before 6000 King George V removed the main line steam ban, in 1969 this magnificent locomotive could be

found at Bullmer's cider factory, Hereford.

Dedicated steam hunters could also venture over the water, and we follow the RPSI two-day tour from Belfast to Cork. Flying Scotsm the exception to the ban on main line steam. There was also narrow gauge steam and we visit the Romney, Hythe & Dymchurch Railway during May 1969. In the same month a trip is also made to the Talyllyn Railway.

At Didoot the Great Western Society had moved in during 1967 and was preparing for its first open day in May 1969. Another first open day was the Steamtown Railway Museum, Camforth, on 1st June 1969.

We cover the Longmoor Military allway in detail — David Shepherd is present for the naming ceremony of 92203 and famous engine driver Sammy Gingell helps with 35028. WD 2-10-0 Gordon is seen hauling a BR special around the system during July 1969. By now the Keighley

Worth Valley had been operating for one year and we see this delightful line basking in the summer sunshine. Industrial steam is not forgotten — the Walkden system near Manchester featured North Staffordshire 0-6-2T Sir Robert, and the British Oak Coal Disposal Point near Wakefeld used Jinly 14745. Another trip in the summer of 1969 was to the Cricklewood open day with 7029; 5593, 5428 and the legendary Kestrel — the 4,000hp diesel later sold to the Soviet Union.

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